ORDER NO. EMID0206011C0

A5

Service Manual

Digital Ensemble

SX-PR604P / SX-PR604PC / SX-PR604MP / SX-PR604MPC

SX-PR604EX / SX-PR604EF / SX-PR604EH / SX-PR604EQ / SX-PR604EG / SX-PR604EB / SX-PR604EV / SX-PR604GN / SX-PR604GM / SX-PR604GT / SX-PR604GU / SX-PR604GH / SX-PR604MEX / SX-PR604MEF / SX-PR604MEH / SX-PR604MEQ / SX-PR604MEG / SX-PR604MEB / SX-PR604MEV / SX-PR604MGN / SX-PR604MGM / SX-PR604MGT

(P) U.S.A.

(PC) Canada

(EX) Norway, Sweden, Denmark, Finland, Spain, Portugal, Poland, South Africa

(EF) France

(EH) Netherlands

(EQ) Germany

(EG) Switzerland, Italy, Austria

(EB) Great Britain

(EV) Belgium

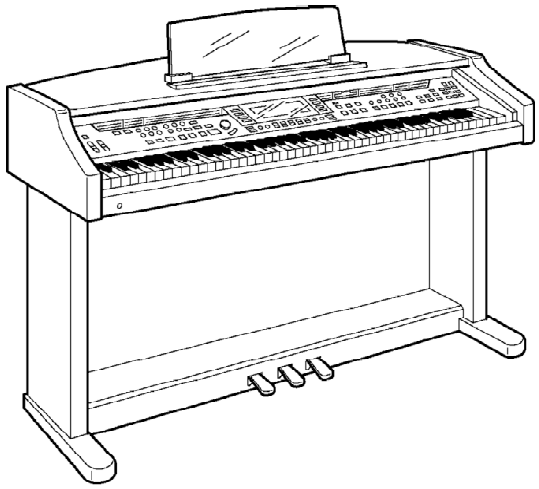
(GN) Australia, New Zealand

(GM) Malaysia, Singapore

(GT) Taiwan

(GU) Thailand, Brazil (SX-PR604 only)

(GH) Saudi Arabia, Hong Kong, Kuwait (SX-PR604 only)



SPECIFICATIONS

SPECIFICATIONS

KEYBOARD	88 KEYS
SOUND GENERATOR	PCM
MAX. POLYPHONY	64 NOTES
SOUNDS	NUMBER OF SOUNDS: 1039 SOUNDS + 2 OGGAN DRAWBARS + 32 DRUM KITS PIANO GROUP: GRAND, UPRIGHT, ELECTRIC, MODERN SOUND GROUP: GUITAR & HARPSI, STRINGS , BRASS,VOCAL, SAX & WOODWIND, ORGAN & ACCORDION, SYNTH, MALLET & ORCH PERC, BASS, DRAM KITS, SOUND EXPLORER,MIXTURES, DIGITAL DRAWBAR
PIANIST SONG	Supported
SIMPLE PIANO	Supported
FAVORITES	Supported
PEDAL	SUSTAIN, SOSTENUTO, SOFT
EFFECT	DIGITAL EFFECT, MULTI EFFECT, BRILLIANCE, REVERB, CHORUS, SOLO
PART SELECT	RIGHT1, RIGHT2, LEFT
TRANSPOSE	2 OCTAVES

RHYTHMS	**NUMBER OF RHYTHMS: 160 RHYTHMS × 4 VARIATIONS**
	RHYTHM GROUP: 8 & 16 BEAT, JAZZ COMBO, COUNTRY & WESTERN, BALLAND, LATIN & WORLD, SOUL & DISCO, GOSPEL & BLUES,BIG BAND & SWING, MARCH & WALTZ, BALL ROOM & SHOW TIME
METRONOME	**Supported**
CONTROLS	**MAIN VOLUME, APC/ SEQUENCER VOLUME, BALANCE, MUTE, CONDUCTOR, START/STOP, INTRO & ENDING 1, INTORO & ENDING 2, FILL IN 1, FILL IN 2, COUNT INTRO, SYNCHRO START, TEMPO/PRPGRAM,TAP TEMPO, FADE IN/OUT, SPLIT POINT, R1/R2 OCTAVE**
AUTO PLAY CHORD	**MODE: BASIC, ADVANCED 1, ADVANCED 2, PIANIST ON BASS, CHORD FINDER, LEFT HOLD**
MUSIC STYLE ARRANGER	**Supported**
SOUND ARRANGER	**Supported**
PIANO STYLIST	**Supported**
ONE TOUCH PLAY	**Supported**
TECHNI-CHORD	**Supported**
PANEL MEMORY	**3 BANKS × 8, SET, NEXT BANK, BANK VIEW**
SEQUENCER	**16 TRACKS RESOLUTION: 1/96 PER BEAT**
	STRAGE CAPACITY: APPROX.40000 NOTES (10 SONGS MAX.)
	INPUT MODES: EASY RECORD, REALTIME RECORD, STEP RECORD
	FUNCTIONS: RECORD & EDIT, COPY & PASTE,RANGE EDIT
COMPOSER	**5 PARTS: BASS, ACCOMP 1-5, DRUMS 1, 2**
	STRAGE CAPACITY: APPROX.13000 NOTES
	INPUT MODES: REALTIME RECORD, STEP RECORD
	FUNCTIONS: PATTERN COPY, SEQ TO COMPOSER COPY, LOAD SINGLE COMPOSER MEMORY:3 BANKS
DISK DRIVE	**3.5 inch DISK DRIVE for 2HD (1.44 MB), 2DD (720 KB) LOAD, SAVE, DIRECT PLAY, SONG MEDLEY, DISK TOOLS, PREFERENCES**

SOUND SETTING	PART SETTING, MIXER, MASTER TUNING, KEY SCALING, TECHNI-CHORD, SOUND EDIT
REVERB & EFFECT	TONE CONTROL, REVERB, CHORUS, MULTI, SOUND LOAD OPTION, MIXER
CUSTOMIZE	DISPLAY TIMEOUT, DATA PROTECTION, FAVORITES SETTING, MIDI SETTING LOAD OPTION, LAGUAGE SETTING, DISK PREFERENCE
CONTROL	INITIAL, PEDAL SETTING, PANEL MEMORY MODE, MUSIC STYLE ARRANGER MODE, FADE IN/OUT SETTING
DISPLAY	LCD: PAGE, CONTRAST, EXIT, DISPLAY HOLD
HELP	Supported
DEMO	Supported
TERMINALS	PHONES × 2, LINE OUT (R/MONO.L), AUX IN (R/MONO,L), USB, MIDI (IN, OUT, THRU), PEDAL IN
MIC INPUT	Supported(MIC REVERB & EFFECT)
OUTPUT	120 W (60 W × 2)
SPEAKERS	16 cm × 2, 6.5cm × 2
POWER REQUIREMENT	125 W AC120/220/230-240V 50/60 Hz AC120V 60 Hz (NORTH AMERICA AND MWXICO) AC230-240 50/60 Hz (EUROPE, AUSTRALIA AND NEW ZEALAND)
DIMENSIONS (W×H×D)	140.6 cm × 106 cm × 65.2 cm (55 -11/32” x 41-23/32” x 25-21/32”)
NET WEIGHT	59 kg (130.1 lbs.)
ACCESSORIES	AC CORD, MUSIC STAND, FLOPPY DISK, CD-ROM

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Technics

1. WARNING

To prevent the risk of fire, smoke, or electrical shock and to ensure safe operation, please be

sure to follow the safety guidelines below.

1. **At places where special caution is required, the necessary safety precautions are clearly labeled or printed, for example, on the cabinet, or on the part concerned. Please follow these safety precautions, and also those listed in the Owner'sManual.**
2. **Parts which have a ⚠ mark in the circuit diagram or in the parts list are essential for safety. When replacing these parts, be sure to use only the specified parts.**
3. **Use the specified types for internal wiring (double-insulated wiring, etc.).**
4. **When replacing parts on the AC primary side (power transformer, electric switch, electrical cord, noise-prevention condenser, etc.), wind the lead wire and secure it by soldering.**
5. **Do not let the wiring come into contact with heat-emitting devices (fuse resistor, radiator plate, etc.).**
6. **When replacing the wiring, make sure that it is not in contact with the unfinished or rough edge of a part.**
7. **When replacing the power cord (except for the plug-in type), tug it from various directions to confirm that it does not slip out of place.**
8. **Spacing**
   If soldering was done on the AC primary circuit, confirm that the interval between the soldered terminals or between the terminal and surrounding metallic parts is at least the minimum required (between the primary circuit and the chassis: atleast 6.5 mm; between primary circuit terminals: at least 4.0 mm; between primary circuit terminals and secondary circuit terminals: at least 6.5 mm.).

2. SAFETY PRECAUTION

2.1. Safety precaution

1. **Before servicing, unplug the power cord to prevent an electric shock.**
2. **When replacing parts, use only the manufacturer’s recommended**

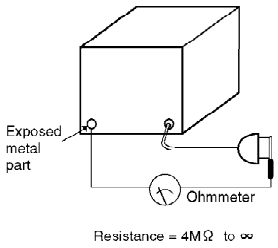
components for safety.

3. Check the condition of the power cord. Replace if wear or damage is evident.
4. After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields, etc.
5. Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from being exposed to a shock hazard.

2.2. Insulation resistance test

1. Unplug the power cord and short the prongs of the plug with a jumper wire.
2. Turn on the power switch.
3. Measure the resistance value with an ohmmeter between the jumpered AC plug and each exposed metal cabinet part, such as screw heads, connectors, control shafts, handle brackets, etc. Measurements should range from 4 M Ohm to infinity for allexposed parts.

Figure-1



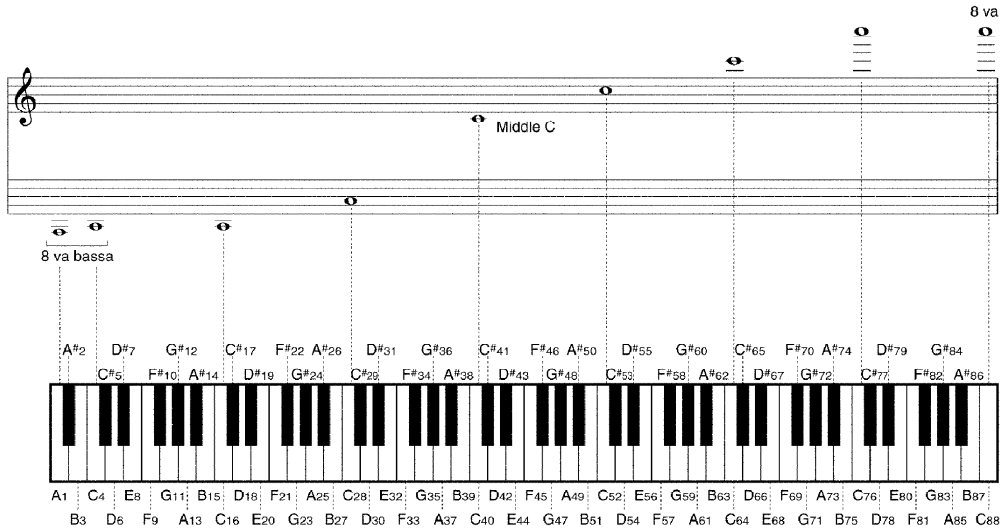
3. OWNERS MANUAL

4. HOW TO ASSEMBLE THE PIANO

5. KEYBOARD RANGES

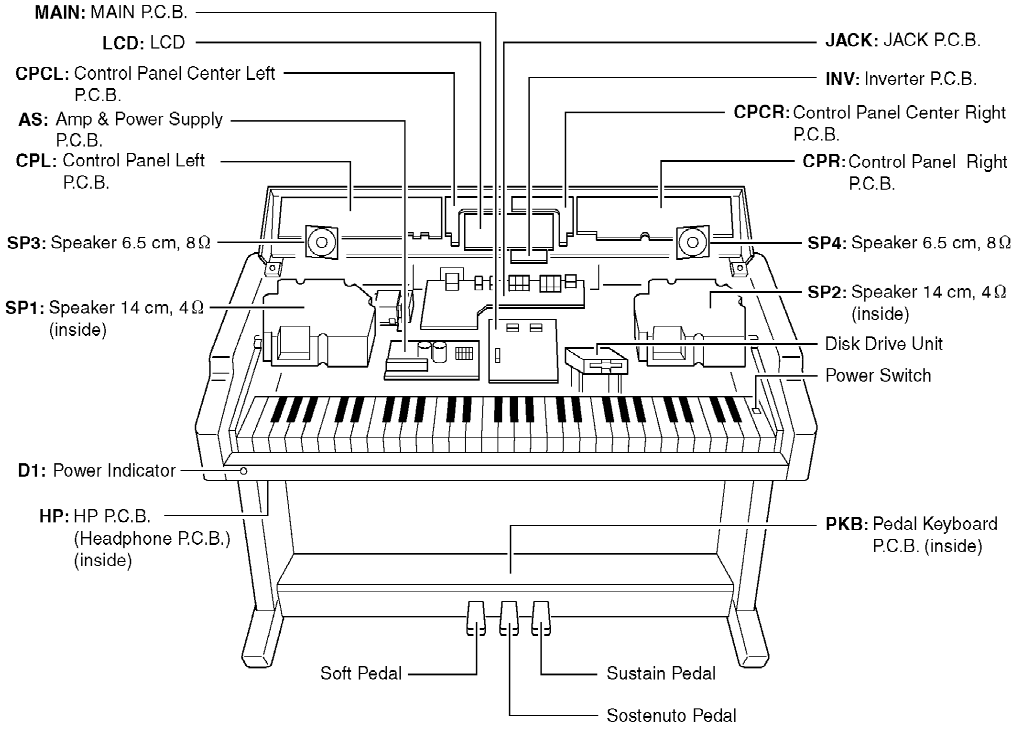
This keyboard features Touch Response, by which you control the volume by playing the keys harder or softer.

Figure-2



6. PARTS LOCATION

Figure-3


MAIN: MAIN P.C.B.
LCD: LCD
CPCL: Control Panel Center Left P.C.B.
AS: Amp & Power Supply P.C.B.
CPL: Control Panel Left P.C.B.
SP3: Speaker 6.5 cm, 8Ω
SP1: Speaker 14 cm, 4Ω (inside)
D1: Power Indicator
HP: HP P.C.B. (Headphone P.C.B.) (inside)
JACK: JACK P.C.B.
INV: Inverter P.C.B.
CPCR: Control Panel Center Right P.C.B.
CPR: Control Panel Right P.C.B.
SP4: Speaker 6.5 cm, 8Ω
SP2: Speaker 14 cm, 4Ω (inside)
Disk Drive Unit
Power Switch
PKB: Pedal Keyboard P.C.B. (inside)
Soft Pedal
Sustain Pedal
Sostenuto Pedal

7. DISASSEMBLY INSTRUCTIONS

7.1. Removing the top cover

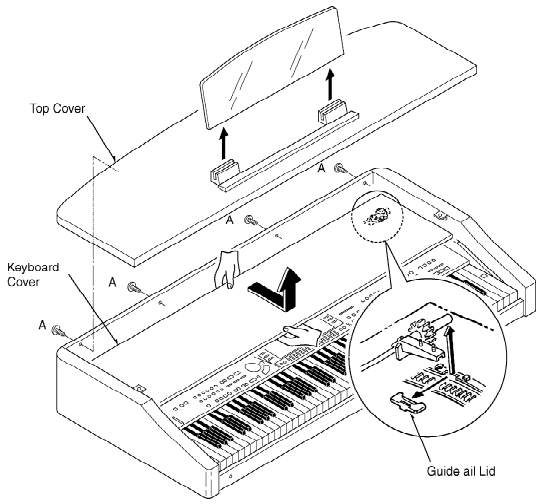
1. Remove the top cover mounting screws (A x 4 pcs.) as shown in Figure-4 .

2. Slide the top cover forward and lift up (as shown by the arrows).

7.2. Removing the keyboard cover

1. Remove the top cover (see step “Removing the top cover ”).
2. Match the gears of the keyboard cover with the notches in the guide rail, and lift up the keyboard cover as shown in Figure-4 .

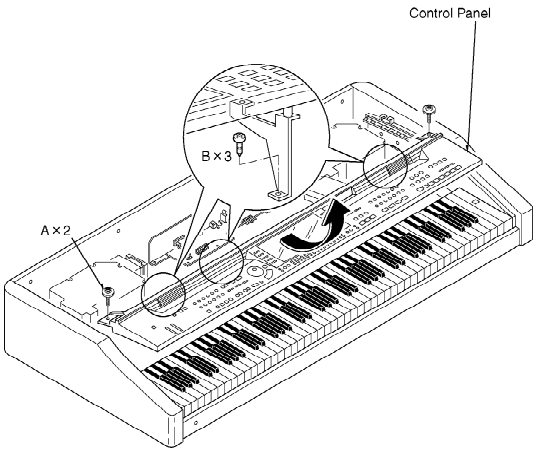
Figure-4



7.3. Removing the control panel

1. Remove the keyboard cover (see step “Removing the keyboard cover ”).
2. Remove the control panel mounting screws (A x 2 pcs. and B x 3 pc.) as shown in Figure-5 .
3. Slide the control panel forward and pull out (as shown by the arrows).

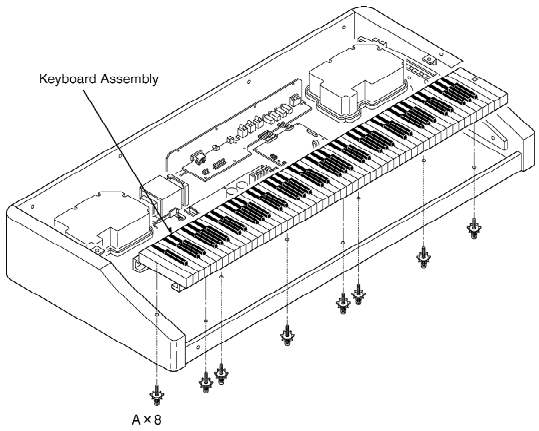
Figure-5



7.4. Removing the keyboard assembly

1. Remove the control panel (see step “Removing the control panel).
2. Remove the keyboard assembly mounting screws located on the bottom of the cabinet (A x 8 pcs.) as shown in Figure-6 .

Figure-6



7.5. Key(s)

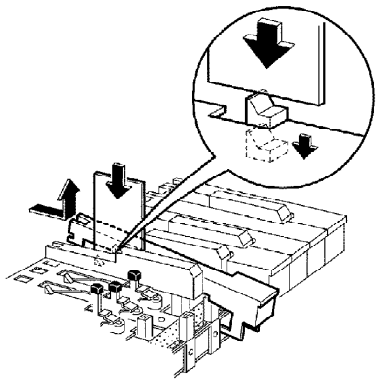
Disassembly

1. Remove the keyboard assembly (see step “Removing the keyboard assembly ”).
2. While inserting a thin plate to press down a claw, push the rear of the key forward to disengage the key claw from the chassis.
3. Lift the key up to remove it.

Note:

- The key claw is easily broken. Do not apply undue force. Should a key claw break, it can still be used.
- If a black key is to be replaced, it is necessary to remove both adjacent white keys.

Figure-7

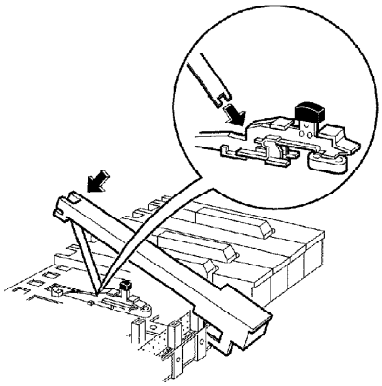


/ / / /

Assembly

1. **Insert the front part of the key into the chassis.**
2. **Insert the plate spring into the hammer notch as shown in Figure-8 .**
3. **While slowly lowering the key into the chassis, insert the plate spring into the notch at the rear of the key.**
4. **Carefully insert the key into the opening in the chassis and slide the key towards the rear to lock it in place.**

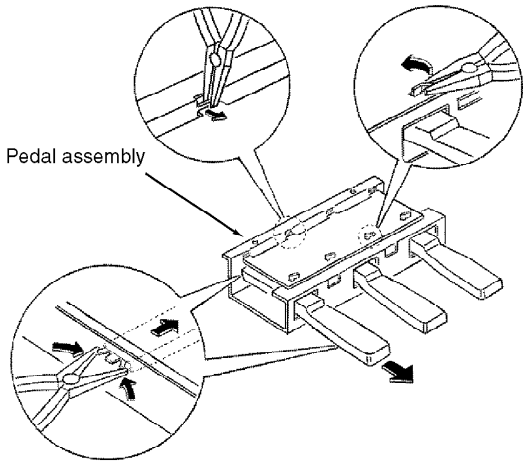
Figure-8



7.6. Disassembly of the pedal assembly

1. **Remove the pedal assembly from the pedal box.**
2. **Disassemble the pedal assembly as shown in Figure-9 .**

Figure-9



7.7. Removing the printed circuit boards

- Remove the keyboard cover (see step "Removing the keyboard cover ").
- Pull out the connectors on the printed circuit boards.

MAIN P.C.B.

1. Release the claws of the 6 P.C.B. holders.

AS P.C.B.

1. Release the claws of the 9 P.C.B. holders.
2. Remove the ground wire holding screws (A x 1 pc.).

JACK P.C.B.

1. Remove the MAIN P.C.B..
2. Remove the JACK P.C.B. mounting screws (B x 6 pcs.).
3. Remove the JACK P.C.B. mounting nuts (C x 4 pcs.).

HP P.C.B.

1. Remove the keyboard assembly (see step "Removing the keyboard assembly ").
2. Remove the HP P.C.B. mounting screws (D x 2 pcs.)
3. Remove the headphone jack mounting nuts (E x 4 pcs.).

7.8. Removing the Disk Drive unit

1. Remove the keyboard cover (see step "Removing the keyboard cover ").
2. Pull out the connector from the Disk Drive unit.
3. Remove the chassis on which Disk Drive unit is attached (F x 4

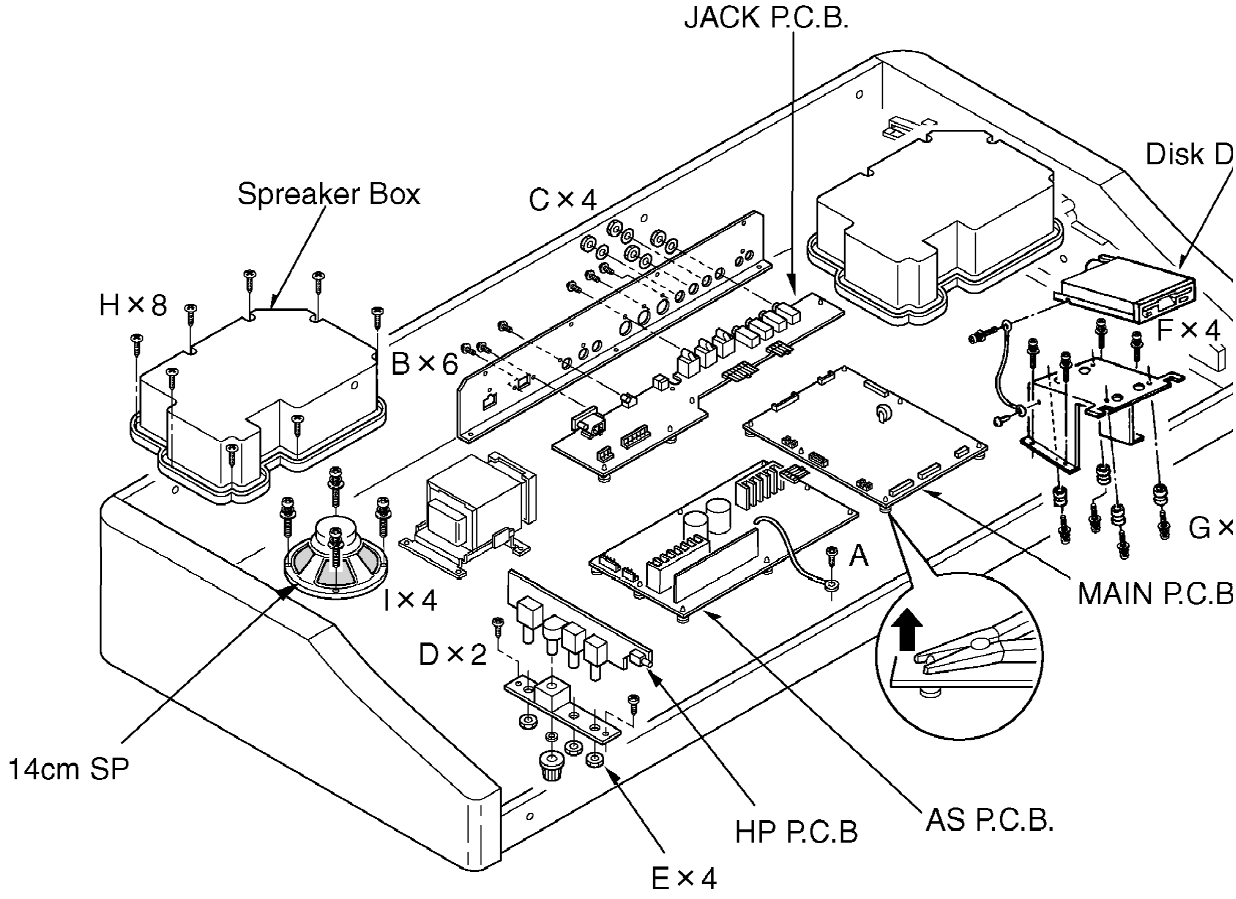
pcs.).

4. Remove the Disk Drive unit mounting screws (G x 4 pcs.).

7.9. Removing the 14cm speakers

1. Remove the keyboard cover (see step "Removing the keyboard cover ").
2. Remove the speaker box mounting screws (H x 8 pcs.).
3. Remove the 16cm speaker mounting screws (I x 4 pcs.).

Figure-12



7.10. Removing the 6,5cm speaker, the LCD and INV P.C.B.

- Remove the control panel (see step "Removing the control panel ").

6,5cm speaker

- Remove the 6,5cmm speaker mounting screws (A x 4 pcs.).

LCD P.C.B.

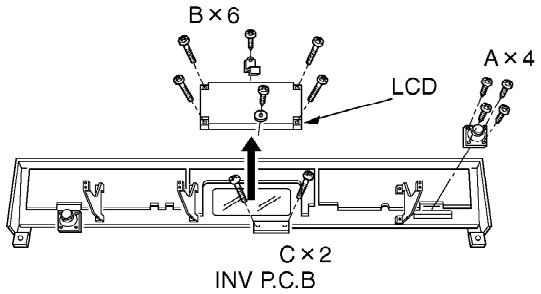
- Remove the LCD P.C.B. mounting screws (B x 6 pcs.).

INV P.C.B.

1. Remove the INV P.C.B. mounting screws (C x 2 pcs.).

2. Remove the INV P.C.B..

Figure-10



7.11. Removing the CPL, CPR P.C.B.

- Remove the control panel (see step "Removing the control panel ").
- Remove the LCD (see step "Removing the 6,5cm speaker, the LCD and INV P.C.B. ").

CPR P.C.B.

1. Remove the CP mount bracket (A x 2 pcs.).

2. Remove the CPR P.C.B. mounting screws (D x 12 pcs.).

CPL P.C.B.

1. Remove the CP mount bracket (A x 2 pcs.).

2. Pull the knob and dial wheel.

3. Remove the CPL P.C.B. mounting screws (C x 17 pcs.).

CPCR P.C.B.

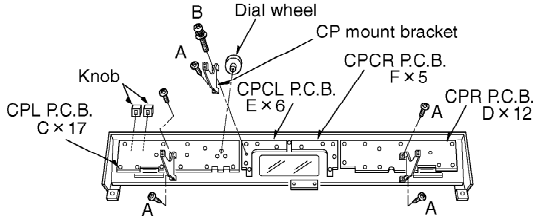
1. Remove the CPCR P.C.B. mounting screws (F x 5 pcs.).

CPCL P.C.B.

1. Remove the CP mount bracket (A x 1 pc.,B x 1 pc.).

2. Remove the CPCL P.C.B. mounting screws (E x 6 pcs.).

Figure-11



8. SERVICE DIAGNOSTIC FUNCTION

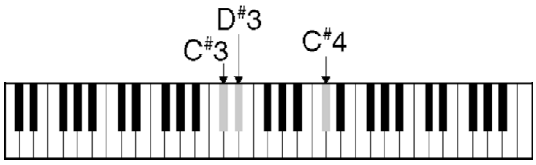
The service diagnostic function makes it possible to determine whether the various test modes

pass or fail. The test modes are completely independent of one another. Select a test mode as necessary, and run the test.

To set to the service diagnostic mode:

1. Press and hold the C#3, D#3, C#4 keys, and then turn on the power switch.

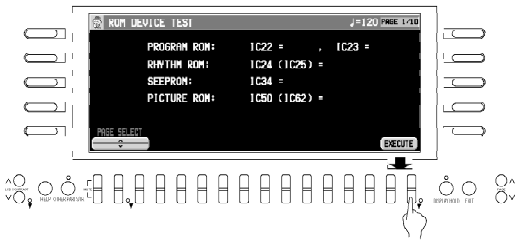
Figure-13



2. After the service diagnostic screen is displayed on the LCD, release the three keys.

3. Use the PAGE SELECT button below the display to select the respective test.

Figure-14



8.1. ROM device test

Figure-15

ROM DEVICE TEST
♩=120 PAGE 1/10
PROGRAM ROM: IC22 = OK , IC23 = OK
RHYTHM ROM: IC24 (IC25) = OK
SEEPROM: IC34 = OK
PICTURE ROM: IC50 (IC62) = OK
PAGE SELECT
ALL DEVICE OK
EXECUTE

- Press the EXECUTE button to begin the test.

- The test result (OK or NG) is displayed within a few seconds. If the test result is NG, not only the respective IC, but also a break or short circuit in the ADDRESS/DATA BUS as well as in any of the strobe signal lines may be the cause of the failure.

8.2. RAM device test

Figure-16

- Press the EXECUTE button to begin the test.
- The test result (OK or NG) is displayed within a few seconds. If the test result is NG, not only the respective IC, but also a break or short circuit in the ADDRESS/DATA BUS as well as in any of the strobe signal lines may be the cause of the failure.

8.3. Other device test

Figure-17

- Press the EXECUTE button to begin the test.
- The test result (OK or NG) is displayed within a few seconds. If the test result is NG, not only the respective IC, but also a break or short circuit in the ADDRESS/DATA BUS as well as in any of the strobe signal lines may be the cause of the failure.
- If the DSP button is on, the “sine wave” sound will be heard when the DSP device works fine.
- If the DSP-RAM button is on, the repeated sound will be heard by any key down when the DSP-RAM device works fine.
- To stop theses effect, push the OFF button.

8.4. Floppy Disk SAVE/LOAD test

Figure-18

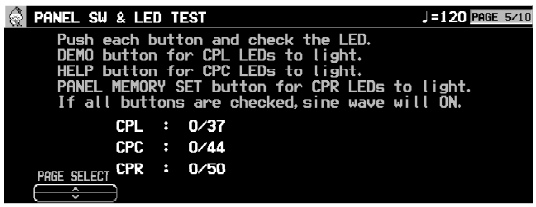
- Insert a formatted floppy disk into the Disk Drive. Press the START button to begin the test.
- The test is carried out repeatedly. Data is saved and loaded, and then the two data sets are compared. The number of times that the

test results in OK or NG are counted and displayed on the LCD. To interrupt the test, press the STOP button.

- Even when the Floppy Disk Drive is functioning properly, the test can result in NG. If this happens frequently, clean the magnetic heads of the Floppy Disk Drive with a cleaning disk. Then, change the disk used in testing with another disk andreperform the test. If the trouble is not solved, it is likely that the Disk Drive unit or some other part of the hardware is broken.

8.5. Panel SW & LED test

Figure-19


PANEL SW & LED TEST
♩=120
PAGE 5/10
Push each button and check the LED.
DEMO button for CPL LEDs to light.
HELP button for CPC LEDs to light.
PANEL MEMORY SET button for CPR LEDs to light.
If all buttons are checked, sine wave will ON.
CPL : 0/37
CPC : 0/44
CPR : 0/50
PAGE SELECT

- Press all the buttons on the Control Panel and confirm that the corresponding LED lights.
- If an LED fails to light, the cause may be a defective switch or a break in the surrounding circuit, etc.
- After all the buttons have been pressed, all the PANEL MEMORY LEDs light.
- To light CPL LEDs, press the DEMO button. To light CPL LEDs, press the HELP button.To light CPR LEDs, press the PANEL MEMORY SET button. If an LED fails to light, the LED may be defective or there may be a break in the surrounding circuit.

8.6. LCD module test (LCD adjustment and confirmation)

Figure-20

- Press the BW, CROSSTALK, SAMPLE or CONTRAST button to begin the respective test.

RGBWB:

All the dots light in white and black. The display can be held by pressing the DISPLAY HOLD button.

CROSSTALK:

An H pattern is shown. LCD crosstalk can be evaluated. To exit this test, press the EXIT button.

SAMPLE:

Several display patterns shown during normal use are shown. The display can be held by pressing the DISPLAY HOLD button.

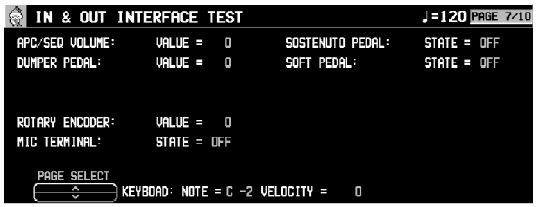
CONTRAST:

The test pattern is shown. Adjust the contrast by the CONTRAST control on the left of the LCD. To exit this test, press the EXIT button.

- If the correct display is not shown during these tests, the LCD or LCD drive circuit may be defective.

8.7. In & Out interface test

Figure-21


IN & OUT INTERFACE TEST
♩=120 PAGE 7/10
APC/SEQ VOLUME: VALUE = 0
SOSTENUTO PEDAL: STATE = OFF
DUMPER PEDAL: VALUE = 0
SOFT PEDAL: STATE = OFF
ROTARY ENCODER: VALUE = 0
MIC TERMINAL: STATE = OFF
PAGE SELECT
KEYBOAD: NOTE = C -2 VELOCITY = 0

- The operation status of each input action part can be confirmed. If the part is operating properly, “OK” is shown.

- When a keyboard key is pressed, the corresponding pitch and velocity are displayed (only as long as the key is depressed).

- The respective statuses for other input action parts are displayed. (Analog parts are shown as numerical values from 0 to 255, and switches are shown as ON or OFF.)

- If the display fails to change when the part is operated, or if the change is abnormal, it may indicate a defective part.

8.8. MIDI IN/OUT test

Figure-22

- First, set the COMPUTER terminal switch to MIDI.

- Use a MIDI cable to directly connect the MIDI IN and MIDI OUT

terminals.

- When a keyboard key is pressed, the transmitted and received data are compared and the MIDI terminal operation is indicated as being OK or NG.
- If NG is shown, check both the IN and OUT terminals, as well as the circuit.

8.9. WAVE ROM test

Figure-23

- Press the EXECUTE button to start the test.
- The test result (OK or NG) is displayed within forty five seconds. If the test result is NG, not only the respective IC, but also a break or short circuit in the ADDRESS/DATA BUS as well as in any of the strobe signal lines may be the causeof the failure.

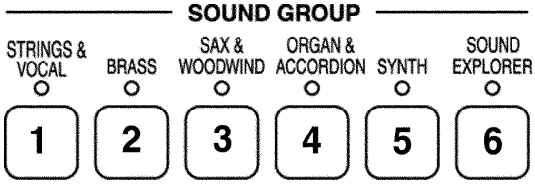
8.10. SOUND SYSTEM test

Figure-24

SOUND SYSTEM TEST
♩=120 PAGE10/10
Select the mode by sound button of highest line.
CHECK MODE: (1)SINE WAVE at Full level (w/o Touch and Key note)
C-key = IC203&204, C#-key = IC207&208
(2)GENERATOR LSI PAN check (w/o Touch and Key note)
C-key = LEFT, C#-B-key = RIGHT
(3)HIGH SOUND check(+2octave w/o Touch and Key note)
(4)LOW SOUND check(-2octave w/o Touch and Key note)
(5)NORMAL SOUND check with TOUCH
(6)SINE WAVE at 16dB DOWN level(w/o Touch and Key note)
PAGE SELECT
KEY DOWN INFORMATION = ( )
AUTO SWEEP

- Use the button in the SOUND GROUP to select an item from 1 to 6 as shown in Figure-25 . Press a keyboard key.

Figure-25



1. Generate a full amplitude sine wave in the pitch of each key. (No touch, fixed stereo center).
   If no sound is generated or if the sound is distorted, the sound generator ROM corresponding to the key position is defective.
2. For confirming the output pathway from the sound generator.

(Fixed scale, no touch)
The Lch and Rch sound outputs are confirmed separately.

3. **Generate a full amplitude sine wave in the pitch of each key +2 octaves. (No touch, fixed stereo center)**
   By generating a sound frequency outside the normal keyboard zone, you can confirm whether or not there is an abnormality in the sound output frequency zone.
4. **Generates a full amplitude sine wave in the pitch of each key -2 octaves. (No touch, fixed stereo center)**
   By generating a sound frequency outside the normal keyboard zone, you can confirm whether or not there is an abnormality in the sound output frequency zone.
5. **Generate a sine wave in the pitch of each key with touch.**
   You can confirm if the volume changes depending on the touch.
6. **Generate a full amplitude sine wave in the pitch of each key at a -16 dB volume. (No touch, fixed stereo center)**
   You can confirm the same sound output as in 1, at a lower volume.

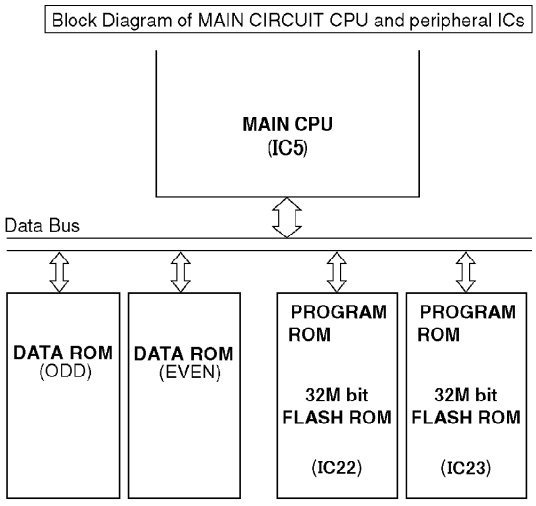
9. PRECAUTIONS BEFORE SERVICING THE MAIN CIRCUIT

This model employs a FLASH ROM (EEPROM) for the PROGRAM ROM. If changing This ICs, service the MAIN CIRCUIT as explained here following.

9.1. About the FLASH ROM

The FLASH ROM can be electrically erased and rewritten. This model is designed so that the repair technician can easily write and change programs and data in the FLASH ROM, by using a floppy disk.

Figure-26



* FLASH ROM contents
IC22/23: MAIN CPU program

9.2. Notes on replacing FLASH ROMs

The replacement parts contain a FLASH ROM with a available memory and the PROGRAM DISKs which include the program to be written into the PROGRAM ROM. After replacing the PROGRAM ROM, always write the program into it from the PROGRAM DISKs includedin the replacement parts. For details on programming, see "After replacing the PROGRAM ROM (IC22/ IC23) ".

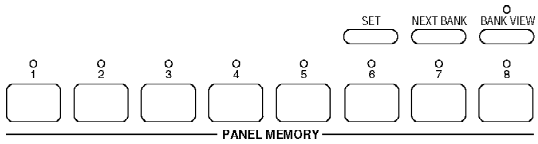
9.3. How to write program into FLASH ROM

9.3.1. After replacing the PROGRAM ROM (IC22/IC23)

1. Insert the PROGRAM DISK A (or No.1) included in the replacement parts into the Floppy Disk Drive.

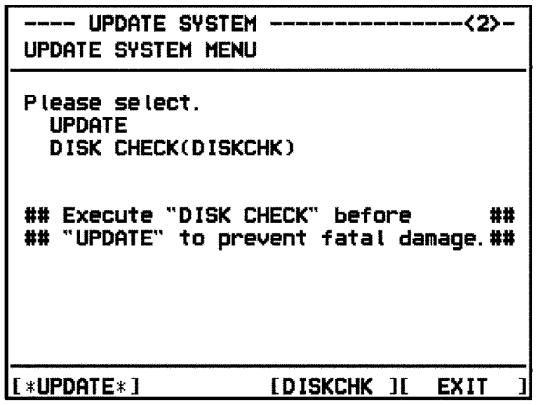
2. Hold down the PANEL MEMORY buttons 1 , 2 , 3 and 4 (as shown in Figure-27), and turn on the power switch.

Figure-27



**3. Check "UPDATE SYSTEM MENU" screen is displayed on the LCD, and release the PANEL MEMORY buttons.
Select [*UPDATE*] button under the display.**

Figure-28



4. In next FLASH MEMORY UPDATE screen, confirm the procedure and push [*UPDATE*] button again.
5. In next <PROGRAM VERSION INFO> screen, confirm the version at “NOW(CURRENT) =“ column is “Ver F.F.”.
   If the version to update from disks is latest, proceed to update by [*UPDATE*] button.
   The program will be written into the FLASH ROM automatically. Replace the floppy disk B (or No.2) when instructed.
6. When the operation is completed, “Completed!!” will be displayed on the LCD.
7. Turn the power switch off and then turn it on again. Check the instrument is functioning properly.

10. PRECAUTIONS BEFORE SERVICING

10.1. Precautions for measuring of the output waveforms

1. The waveform was measured with a “National Digital Storage Oscilloscope VP-5730A”. Therefore the waveforms of musical tone signals shown may differ somewhat due to the difference in the timing of triggering.
2. Since the 1/10 test probe is used, the indicated voltage value on the bottom part of each waveform illustration is 1/10 of the actual value (e.g. 0.2 V/cm should be 2.0 V/cm).
3. To measure the waveforms, first set this unit to the service diagnostic mode (refer to “Wave ROM test on “SERVICE DIAGNOSTIC FUNCTION ”). The WAVE ROM output will then be outputas a sine wave to facilitate the servicing check.

10.2. Important safety notice

- Components identified by a ⚠ mark have special characteristics important for safety.
- When replacing any of these components, use only manufacture's specified parts.

10.3. Symbolic marks

The symbolic marks for resistors and capacitors which used in this circuits are classified as following Table-1 and Table-2 .

10.3.1. Resistors

- Resistors without symbolic mark are FIXED CARBON FILM RESISTORS (ERD-type).
- All resistors are 1/4 WATT, ±5 % TOLERANCE unless otherwise designated in schematic diagrams.

Table-1

SYMBOL	SPECIFICATION
Ⓕ	Fixed Carbon Film Resistors "FLAME-PROOF" (ERD—F—type)
Ⓕ	Fixed Wire Wound Resistors "FLAME-PROOF" (ERF—type)
Ⓕ	Fixed Metal Oxide Film Resistors "FLAME-PROOF" (ERG—type)
Ⓕ	Fixed Metal Film Resistors "FLAME-PROOF" (ERX—type)
Ⓖ	Fixed Metal Film Resistors (Precision and High Stability) (ERO—type)
F	Fuse Type Fixed Metal Oxide Film Resistors "FLAME-PROOF" (ERQ—type)
F	Fuse Type Fixed Carbon Film Resistors "FLAME-PROOF" (ERD2FC—type)

10.3.2. Capacitors

- Capacitors without symbolic mark are POLYESTER CAPACITORS. (ECQM-type, ECQG-type, ±10% Tolerance)
- Polarized capacitors without symbolic mark are Aluminum Electrolytic Capacitors. (ECEA-type, ±20% Tolerance)

Table-2

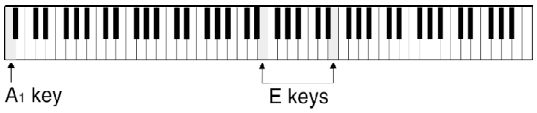
SYMBOL	SPECIFICATION	TYPE
(N)	Non-Polarized Electrolytic Capacitors	ECEA_KN_type
(Y)	Non-Polarized Electrolytic (for Network system)	ECEA_Y_type
(T)	Tantalum Solid Electrolytic Capacitors	ECS_type
(TF)	Metallized Plastic Film Capacitors (TF Series)	ECQV_type
◯	Temperature Compensating Ceramic Capacitors	ECC_type
	High-Dielecytric Constant Ceramic Capacitors	ECK_type, ECR_type
	Axial Lead Ceramic Capacitors	ECB_type
	Metallized Polyester Film Capacitors for Across the Line	ECQ_EW_type
	Aluminum Electrolytic Capacitors for Smoothing Circuit	ECES_type
	Multilayer Ceramic Chip Capacitors	ECUV_type

11. MEASURING CONDITION

11.1. Measuring condition of MAIN P.C.B.

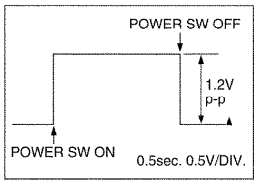
Check Point 3 - 5
Set to the Self-diagnostic Mode followings.

- While pressing two E keys simultaneously, turn on the power switch.
- SOUND : SOUND EXPLORER
- MAIN VOLUME: Max.
- Keyboard: A1



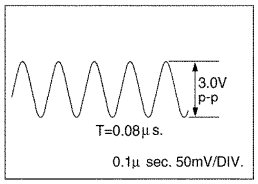
Check Point 1
Set to the Initial mode (refer to "OWNERS MANUAL ").

❶ RESET

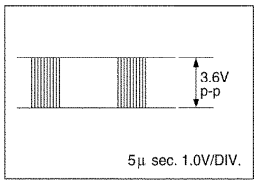


▪ Power SW ..... ON → OFF

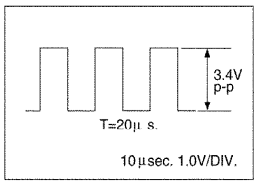
❷ TG CLOCK



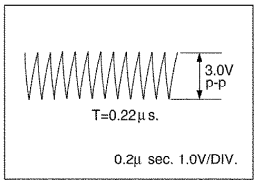
❸



❹



❺

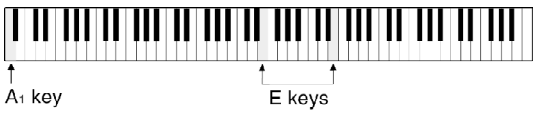


11.2. Measuring condition of AS P.C.B.

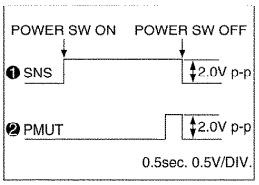
Check Point 3 - 8

Set to the Self-diagnostic Mode followings.

- **While pressing two E keys simultaneously, turn on the power switch.**
- **SOUND : SOUND EXPLORER**
- **MAIN VOLUME: Max.**
- **Keyboard: A1**

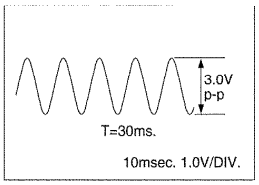


❶ SNS, ❷ PMUT

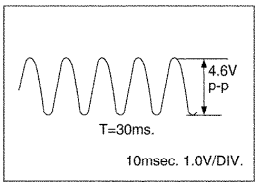


* Power SW..... ON → OFF

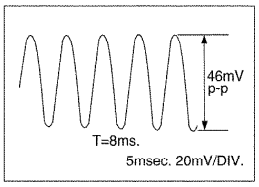
❸ SUML , ❹ SUMR



❺ HPL, ❻ HPR



❼ SPL, ❽ SPR



12. SCHEMATIC DIAGRAM

13. PRINTED CIRCUIT BOARD

14. BLOCK DIAGRAM

15. WIRING CONNECTION DIAGRAM

16. REPLACEMENT PARTS LIST

Notes:
***Important safety notice:**
Components identified by ⚠ mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufacture's specified parts shown in the parts list.
***Warning: This product uses a laser diode. Refer to caution statements.**
***ACHTUNG: Die lasereinheit nicht zerlegen. Die lasereinheit darf nur gegen einc vom hersteller spezifizierte einheit ausgetauscht werden.**
***Capacity values are in microfarads (uF) unless specified otherwise. P=Pico-farads (pF), F= farads (F)**
***Resistance values are in ohms, unless specified otherwise. 1K=1,000 (OHM), 1M=1,000K (OHM)**
***The marking <RTL> indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, it will no longer be available.**
***"<IA>"-"<IH>" marks in Remarks indicate languages of instruction manuals. [<IA>: English, <IB>: English, <IC>: Germany, <ID>:French, <IE>: Nederlands]**
***MAIN, CPL, CPR, CPCL, CPCR, HP, INV, JACK, AS, ASUB, PKB, MKB1 and MKB2 in Remarks indicate the Circuits and P. C. B.s. If the same Ref. No. is found in the replacement parts list, check those indications in the Remarks.**

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1	QYAG2015AA	MUSIC STAND	1	
2	QHDG067AA	SCREW	4	
3	QHDG016AB	SCREW	4	
4	XYN6+F16FZ	SCREW	2	
5	QKQGA152CAZ	TOP COVER ASS'Y	1	
5	QKQGA152CBZ	TOP COVER ASS'Y	1	SX-PR604M
5-1	QMRG7140AA	MUSIC STAND STOPPER	2	
5-2	SPBS8002	SCREW	4	
5-3	QMFG1222AA	FELT	3	
5-4	QMFG1057AA	FELT	4	
5-5	SGBG160B	BADGE	1	
5-6	XTT4+10A	SCREW	2	
6	QKQGF042AAZ	KEY BOARD COVER ASS'Y	1	
6	QKQGF042ABZ	KEY BOARD COVER ASS'Y	1	SX-PR604M
6-1	QGKG0095AD	ORNAMENT	1	
6-2	QMFG1258AA	FELT	2	
6-3	QMRG7031EC	PROTECTOR	1	
6-4	QMRG7032EC	PROTECTOR	1	
6-5	QMFG1259AA	FELT	2	
6-6	XTT4+10A	SCREW	8	
6-7	XTB4+10B	SCREW	2	
6-8	XTT4+12AFZ	SCREW	1	
6-9	QXQG007AA	AXLETREE	1	
6-10	QMRG7056AA	HOLDER	2	
6-11	QWBG002AA	HOLDER	1	
7	QKQGD140ABZ	CROSS BOARD	1	SX-PR604M
7	QKQGD140AAZ	CROSS BOARD	1	
8	QKQGB575AAZ	LEFT PLANK ASS'Y	1	
8	QKQGB575ABZ	LEFT PLANK ASS'Y	1	SX-PR604M
8-1	SHRG2130B-K	FOOT	3	
8-2	XTW3+16J	SCREW	6	
9	QKQGB576AAZ	RIGHT PLANK ASS'Y	1	
9	QKQGB576ABZ	RIGHT PLANK ASS'Y	1	SX-PR604M
9-1	SHRG2130B-K	FOOT	3	
9-2	XTW3+16J	SCREW	6	
10	QKQGM122AAZ	PEDAL BOX ASS'Y	1	
10	QKQGM122ABZ	PEDAL BOX ASS'Y	1	SX-PR604M
10-1	QGKG0113AA	ORNAMENT	3	
11	XTN4+16F	SCREW	1	
12	QMBG009AA	SPRING	3	
13	QMFG1133AA	FELT	3	
14	QMFG1134AA	FELT	3	
15	QMWG4008AA	PEDAL ARM	3	
16	QMFG1135AA	FELT	3	
17	QKAG0011AA	FOOT	1	
18	XTT4+14A	SCREW	2	
19	XYN4+F16FZ	SCREW	2	
20	QHDG032AB	SCREW	4	
26	SNEG770A	WASHER	4	
27	XTB3+10JFZ	SCREW	6	
28	QMAG0305AC	JACK PANEL	1	EXCEPT GM GT GU
28	QMAG0305AD	JACK PANEL	1	GM GT GU ONLY
29	QMRG2124AA	SHEET A	1	EXCEPT GM GT GU
29	QMRG2126AA	SHEET C	1	GM GT GU ONLY

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
30	QMRG2125AA	SHEET B	1	
31	SBNG7050A	KNOB	2	
32	QGUG3002BB	DIAL WHEEL	1	
33	QKWG047AA	LCD PANEL	1	
34	QGPG0162BA	CONTROL PANEL	1	EXCEPT P
34	QGPG0162BB	CONTROL PANEL	1	P ONLY
35	QMFG1283AA	FELT	1	
36	QGUG1524AB	BUTTON A	1	
37	QGUG1525AA	BUTTON B	1	
38	QGUG1526AA	BUTTON C	1	
39	QGUG1527AA	BUTTON D	1	
40	QGUG1528AA	BUTTON E	1	
41	QGUG1529AA	BUTTON F	1	
42	QGUG1530AA	BUTTON G	1	
43	QGUG1531AA	BUTTON H	2	
44	QGUG1532AA	BUTTON J	1	
45	QGUG1533AB	BUTTON K	1	
46	QGUG1534AB	BUTTON L	1	
47	QGUG1535AA	BUTTON M	1	
48	QGQG0010AA	SHEET	2	
49	QHDG064AA	SCREW	1	
50	QHDG065AA	SCREW	54	
53	XTN23+10C	SCREW	4	
54	XTW3+10Q	SCREW	8	
55	XWG3F13	SCREW	1	
56	QMRG5296AA	SHEET	1	
57	SBNG4010A	KNOB	1	
58	XNS9	NUT	1	
59	XNS12	NUT	3	
60	XNS12FZ	NUT	4	
69	QKSGG032AA	GUIDE	1	
70	QKSGG033AA	GUIDE	1	
71	QAUG033AA	DISK DRIVE UNIT	1	
72	QMFG1220AA	FELT	1	
73	QEXGRA01007H	WIRE	1	
74	QMGG029AA	FLOATING RUBBER	4	
75	QLZG017A	CORE	9	
76	QLZG021A	CORE	2	
77	QQLG174AA	LABEL	1	
78	QMRG7086AA	LID GUIDE	2	
79	QTPG1M022A	POWER TRANSFORMER	1	⚠ G4C6AFD00002 EXCEPT P PC
79	QTPG1M054A	POWER TRANSFORMER	1	⚠ G4C6AFD00004 P PC ONLY
80	L5DZAQJ00001	LCD	1	
81	QYKG322AAZ	CABINET ASS'Y	1	RTL
81	QYKG322ABZ	CABINET ASS'Y	1	RTL, SX-PR604M
82	GTT4+25AFZ	SCREW	4	
83	QMFG4103AA	CUSHION	1	
84	XTB35+16A	SCREW	14	
85	SNEG2400A	SCREW	2	
86	QHWG007AA	NUT	2	
87	XTT4+20A	SCREW	8	
88	XTW3+8J	SCREW	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
89	XYN4+F16	SCREW	4	
90	XTT4+14A	SCREW	16	
91	XYN3+F6	SCREW	1	
92	QHDG021AA	SCREW	8	
93	XTV3+10G	SCREW	1	
94	XYA35+JA12	SCREW	24	
95	XTN4+50AFZ	SCREW	2	
96	QHDG043AA	SCREW	4	
106	XTV3+12G	SCREW	4	
107	XTW3+10T	SCREW	14	
108	QGUG1040AA	BUTTON POWER	1	
109	XTV3+20JFZ	SCREW	2	
110	QMWG8038AA	HAMMER SUPPORT(WHITE KEY)	52	
111	QMWG8039BA	HAMMER SUPPORT(BLACK KEY)	36	
112	QGPG0139BC	END COVER PANEL LEFT	1	
113	QGPG0138BE	END COVER PANEL RIGHT	1	
114	QMFG1104AA	FELT	2	
115	QMWG1041AA	WHITE KEY(FIRST OCTA KEY)	1	
116	QMWG1042AA	WHITE KEY(FIRST OCTAVE B)	8	
117	QMWG1043AA	WHITE KEY(FIRST OCTAVE C)	7	
118	QMWG1044AA	WHITE KEY(FIRST OCTAVE D)	7	
120	QMWG1046AA	WHITE KEY(FIRST OCTAVE F)	7	
121	QMWG1047AA	WHITE KEY(FIRST OCTAVE G)	7	
119	QMWG1045AA	WHITE KEY(FIRST OCTAVE E)	7	
122	QMWG1048AA	WHITE KEY(FIRST OCTAVE A)	7	
123	QMWG1049AA	WHITE KEY(TOP OCTAVE C)	1	
124	QMWG2006AA	BLACK KEY	36	
125	QMCG011CA	SPRING	88	
126	QMWG9027AA	HAMMER (BLACK KEY)	8	
127	QMWG9027AB	HAMMER (BLACK KEY)	14	
128	QMWG9027AC	HAMMER (BLACK KEY)	7	
129	QMWG9027AD	HAMMER (BLACK KEY)	7	
130	QMWG9025AA	HAMMER (WHITE KEY)	12	
131	QMWG9025AB	HAMMER (WHITE KEY)	19	
132	QMWG9025AC	HAMMER (WHITE KEY)	11	
133	QMWG9025AD	HAMMER (WHITE KEY)	10	
134	QMGG060BA	RUBBER CAP (HAMMER)	88	
135	QMWG8045AA	KEY GUIDE	88	
136	QMWG8041AA	FULCURUM(4PCS ON ONE)	1	
137	QMWG8040AA	FULCURUM(12PCS ON ONE)	8	
138	QMFG1267BA	FELT	2	
139	QMFG1268BA	FELT	2	
140	QMFG1266BA	FELT	4	
141	QMFG1265AA	FELT	2	
142	QMWG6021AA	RUBBER SWITCH	1	
143	QMWG6020AA	RUBBER SWITCH	7	
A1	QQFGPR804AA	FAN BAG	1	P
A1	QQFGPR804BA	FAN BAG	1	PC
A1	QQFGPR804CA	FAN BAG	1	EX EH GN GU GH GT GM
A1	QQFGPR804DB	FAN BAG	1	EQ
A1	QQFGPR804EA	FAN BAG	1	EG
A1	QQFGPR804FA	FAN BAG	1	EF
A1	QQFGPR804HA	FAN BAG	1	EV

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
A1	QQFGPR804JA	FAN BAG	1	EB
A1-1	QQTG0665A	INSTRUCTION MANUAL	1	PC EX EB EG<IA>
A1-1	QQTG0665A	INSTRUCTION MANUAL	1	GN GU GH GT GM<IA>
A1-1	QQTG0665B	INSTRUCTION MANUAL	1	P<IB>
A1-1	QQTG0666A	INSTRUCTION MANUAL	1	PC EG EF EV<ID>
A1-1	QQTG0667A	INSTRUCTION MANUAL	1	EQ EG EV<IC>
A1-1	QQTG0668A	INSTRUCTION MANUAL	1	EH<IE>
A1-2	QQCG0426A	REFERENCE MANUAL	1	
A1-3	QQTG0669A	INSTALL MANUAL	1	EXCEPT PC EH
A1-3	QQTG0670A	INSTALL MANUAL	1	PC EH ONLY
A2	K2CBED00001	AC CORD	1	⚠ P PC
A2	RJA0035-1X	AC CORD	1	⚠ GN
A2	SJAG65	AC CORD	1	⚠ K2CR2ED00001 EX EQ EG
A2	VJA0733	AC CORD	1	⚠ K2CT3DA00001 EB GH
A2	SJAG65	AC CORD	1	⚠ K2CR2ED00001 EF EH EV
A2	SJAG65	AC CORD	1	⚠ K2CR2ED00001 GU GT GM
A3	QFVG2045A	CD ROM	1	
A4	K2DA42E00001	PLUG	1	⚠ GT GM ONLY
C1	ECEA0JKS331	6.3V 330U	1	CPL
C1	ECEA0JKS331	6.3V 330U	1	CPR
C1	ECJ1VG1H100D	10P	1	MAIN
C1	ECKF1E473ZV	0.1UF	1	MKB1
C1	ECQE1A104M6	0.1	1	⚠ AS
C1	ECRR1H104ZF1	0.1U	1	F1E1H1040023 PKB
C1	ECRR1H104ZF1	0.1U	1	F1E1H1040023 JACK
C1	QCBG1H473ZFA	0.047U	1	F1E1H473A001 HP
C2	EC0S1HP682DB	50V 0.0068U	1	AS
C2	ECBT1C222MR5	0.0022U	1	F1D1C222A002 CPR
C2	ECJ1VG1H221J	220P	1	MAIN
C2	ECKR1E473ZV	0.047U	1	JACK
C2	QCBG1H473ZFA	0.047U	1	F1E1H473A001 HP
C3	EC0S1HP682DB	50V 0.0068U	1	AS
C3	ECCR1H221J5	220P	1	JACK
C3	ECJ1VG1H100D	10P	1	MAIN
C3	QCBG1H104ZFA	0.1U	1	F1E1H104A001 HP
C3	F1D1H102A012	0.001U	1	F1D1H102A012 CPR
C4	ECBT1H104KB5	0.1U	1	F1D1H1040002 CPR
C4	ECCR1H221J5	220P	1	JACK
C4	ECEA0JKA470	6.3V 47UF	1	MKB1
C4	ECEA1HSN010	50V 1U	1	HP
C4	ECJ1VF1H104Z	0.1U	1	MAIN
C4	ECQV1H105JM3	1U	1	AS
C5	ECBT1H104KB5	0.1U	1	F1D1H1040002 CPR
C5	ECBT1H470J3	47P	1	HP
C5	ECEA0JKS101	6V 100U	1	CPL
C5	ECJ1VF1H104Z	0.1U	1	MAIN
C5	ECQV1H105JM3	1U	1	AS
C5	ECRR1H104ZF	0.1UF	1	MKB2
C5	ECRR1H104ZF1	0.1U	1	F1E1H1040023 JACK
C6	ECBT1H104KB5	0.1U	1	F1D1H1040002 CPL
C6	ECBT1H104KB5	0.1U	1	F1D1H1040002 CPR
C6	ECJ1VF1H104Z	0.1U	1	MAIN

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C6	ECRR1H104ZF	0.1UF	1	MKB1
C6	ECRR1H104ZF1	0.1U	1	F1E1H1040023 JACK
C6	QCBG1H104ZFA	0.1U	1	F1E1H104A001 HP
C7	ECA1CM101	16V 100U	1	AS
C7	ECEA1HSN010	50V 1U	1	HP
C7	ECJ1VF1H104Z	0.1U	1	MAIN
C7	ECRR1H104ZF	0.1UF	1	MKB2
C7	F1D1H102A012	0.001U	1	F1D1H102A012 CPL
C7	F1D1H102A012	0.001U	1	F1D1H102A012 CPR
C8	ECBT1H104KB5	0.1U	1	F1D1H1040002 CPL
C8	ECEA0JKS470	6V 47U	1	HP
C8	ECJ1VF1H104Z	0.1U	1	MAIN
C8	ERDS2FJ103	10K	1	JACK
C9	ECA1CM101	16V 100U	1	AS
C9	ECBT1C222MR5	0.0022U	1	F1D1C222A002 CPL
C9	ECBT1C682MR5	0.0068U	1	F1D1C682A002 HP
C9	EEVHB0J470R	6V 47U	1	MAIN
C9	QCBG1H104ZFA	0.1	1	F1E1H104A001 JACK
C10	ECEA1HKS010	50V 1U	1	AS
C10	ECRR1H104ZF1	0.1U	1	F1E1H1040023 JACK
C10	QCBG1H104ZFA	0.1U	1	F1E1H104A001 HP
C10	F1D1H102A012	0.001U	1	F1D1H102A012 CPL
C11	ECBT1H104KB5	0.1U	1	F1D1H1040002 CPL
C11	ECEA1CKS100	16V 10U	1	AS
C11	ECEA1HSN010	50V 1U	1	HP
C11	ECJ1VF1H104Z	0.1U	1	MAIN
C11	ECQG1H222KZT	2200P	1	F0A1H222A025 JACK
C12	ECBT1H104KB5	0.1U	1	F1D1H1040002 CPL
C12	ECEA1HKS010	50V 1U	1	AS
C12	ECJ1VG1H101J	100P	1	MAIN
C12	ECQG1H222KZT	2200P	1	F0A1H222A025 JACK
C12	QCBG1H104ZFA	0.1U	1	F1E1H104A001 HP
C13	ECA1CM101	16V 100U	1	AS
C13	ECJ1VG1H101J	100P	1	MAIN
C14	ECCR1H100D5	10P	1	AS
C14	ECJ1VG1H101J	100P	1	MAIN
C14	F1B2E4720001	4700P	1	⚠ JACK
C15	ECCR1H100D5	10P	1	AS
C15	ECJ1VG1H101J	100P	1	MAIN
C15	ECQG1H222KZT	2200P	1	F0A1H222A025 JACK
C16	ECJ1VG1H101J	100P	1	MAIN
C16	ECQG1H222KZT	2200P	1	F0A1H222A025 JACK
C16	QCBG1H104ZFA	0.1U	1	F1E1H104A001 AS
C17	ECJ1VF1H104Z	0.1U	1	MAIN
C17	ECQG1H682KZT	0.0068U	1	F0A1H682A025 AS
C18	ECJ1VB1A224K	0.22U	1	MAIN
C18	ECQG1H102KZT	0.001U	1	⚠ F0A1H102A025 AS
C18	ECQU2A104MN	250V 0.1U	1	JACK
C19	ECCR1H471J5	470P	1	AS
C19	ECJ1VF1H104Z	0.1U	1	MAIN
C19	ECRR1H104ZF1	0.1U	1	F1E1H1040023 JACK
C20	ECJ1VF1H104Z	0.1U	1	MAIN
C20	ECQG1H682KZT	0.0068U	1	F0A1H682A025 AS
C21	ECJ1VF1H104Z	0.1U	1	MAIN

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C21	ECQG1H102KZT	0.001U	1	F0A1H102A025 AS
C21	ECRR1H104ZF1	0.1U	1	F1E1H1040023 JACK
C22	ECJ1VF1H104Z	0.1U	1	MAIN
C22	ECQB1H473JF3	0.047U	1	AS
C23	ECCR1H471J5	470P	1	AS
C23,24	ECJ1VF1H104Z	0.1U	2	MAIN
C24	ECQB1H333JF3	0.033U	1	AS
C25	ECJ1VF1H104Z	0.1U	1	MAIN
C25	ECQG1H472KZT	0.0047U	1	F0A1H472A025 AS
C26	ECJ1VF1H104Z	0.1U	1	MAIN
C26	ECQV1H683JZ3	0.068U	1	AS
C27	ECJ1VF1H104Z	0.1U	1	MAIN
C27	ECQB1H153JF3	0.015U	1	AS
C28	ECEA1HSN010	50V 1U	1	AS
C28,29	ECJ1VF1H104Z	0.1U	2	MAIN
C29	ECQV1H224JM3	0.22U	1	AS
C30	ECJ1VF1H104Z	0.1U	1	MAIN
C30	ECQG1H682KZT	0.0068U	1	F0A1H682A025 AS
C31	ECJ1VF1H104Z	0.1U	1	MAIN
C31	ECQG1H102KZT	0.001U	1	F0A1H102A025 AS
C32	ECCR1H471J5	470P	1	AS
C33	ECQG1H682KZT	0.0068U	1	F0A1H682A025 AS
C33	EEVHB0J470R	6V 47U	1	MAIN
C34	ECJ1VB1H103K	0.01U	1	MAIN
C34	ECQG1H102KZT	0.001U	1	F0A1H102A025 AS
C35	ECJ1VF1H104Z	0.1U	1	MAIN
C35	ECQB1H473JF3	0.047U	1	AS
C36	ECCR1H471J5	470P	1	AS
C36,37	ECJ1VF1H104Z	0.1U	2	MAIN
C37	ECQB1H333JF3	0.033U	1	AS
C38	ECJ1VG1H221J	220P	1	MAIN
C38	ECQG1H472KZT	0.0047U	1	F0A1H472A025 AS
C39	ECJ1VG1H221J	220P	1	MAIN
C39	ECQV1H683JZ3	0.068U	1	AS
C40	ECJ1VF1H104Z	0.1U	1	MAIN
C40	ECQB1H153JF3	0.015U	1	AS
C41	ECEA1HSN010	50V 1U	1	AS
C41,42	ECJ1VF1H104Z	0.1U	2	MAIN
C42	ECQV1H224JM3	0.22U	1	AS
C43	ECCR1H100D5	10P	1	AS
C43	ECJ1VF1H104Z	0.1U	1	MAIN
C44	ECCR1H471J5	470P	1	AS
C44	ECJ1VG1H030C	3P	1	MAIN
C45	EEVHP1H1R0R	50V 1U	1	MAIN
C46	ECJ1VF1H104Z	0.1U	1	MAIN
C46	ECQG1H222KZT	2200P	1	F0A1H222A025 AS
C47	ECCR1H100D5	10P	1	AS
C47	ECJ1VG1H030C	3P	1	MAIN
C48	ECCR1H471J5	470P	1	AS
C48-50	ECJ1VF1H104Z	0.1U	3	MAIN
C50	ECQG1H222KZT	2200P	1	F0A1H222A025 AS
C51,52	ECA1HHG221B	50V 220P	2	AS
C52,53	ECJ1VF1H104Z	0.1U	2	MAIN
C53	ECQV1H225JL3	2.2U	1	AS

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C54	ECJ1VF1H104Z	0.1U	1	MAIN
C55	ECEA1HSN010	50V 1U	1	AS
C55	EEVHP1H1R0R	50V 1U	1	MAIN
C56	ECEA1HSN010	50V 1U	1	AS
C56,57	ECJ1VG1H101J	100P	2	MAIN
C57	ECQV1H225JL3	2.2U	1	AS
C58	ECJ1VG1H101J	100P	1	MAIN
C60	ECJ1VF1H104Z	0.1U	1	MAIN
C61	ECEA50Y1R5K	50V 1.5U	1	AS
C61	ECJ1VG1H101J	100P	1	MAIN
C62	ECEA50Y1R5K	50V 1.5U	1	AS
C62	ECJ1VG1H221J	220P	1	MAIN
C63,64	QCBG1H104ZFA	0.1U	2	F1E1H104A001 AS
C65	ECEA1HSN010	50V 1U	1	AS
C65	ECJ1VF1H104Z	0.1U	1	MAIN
C66	ECEA1HSN010	50V 1U	1	AS
C66	ECJ1VF1H104Z	0.1U	1	MAIN
C67	ECQG1H472KZT	0.0047U	1	F0A1H472A025 AS
C79,80	ECJ1VF1H104Z	0.1U	2	MAIN
C82-85	ECJ1VF1H104Z	0.1U	4	MAIN
C87-90	ECJ1VF1H104Z	0.1U	4	MAIN
C92	ECJ1VG1H101J	100P	1	MAIN
C97	ECJ1VG1H101J	100P	1	MAIN
C98-00	ECJ1VF1H104Z	0.1U	3	MAIN
C101	ECBT1H151KB5	150P	1	F1D1H151A012 ASUB
C101	ECJ1VG1H100D	10P	1	MAIN
C102	ECBA1H681KB5	680P	1	F1D1H681A014 ASUB
C102	ECJ1VG1H100D	10P	1	MAIN
C103	ECBA1H681KB5	680P	1	F1D1H681A014 ASUB
C103	ECJ1VF1H104Z	0.1U	1	MAIN
C104	ECBT1H151KB5	150P	1	F1D1H151A012 ASUB
C104	ECJ1VF1H104Z	0.1U	1	MAIN
C105	ECBA1H681KB5	680P	1	F1D1H681A014 ASUB
C105	ECJ1VF1H104Z	0.1U	1	MAIN
C106	ECBA1H681KB5	680P	1	F1D1H681A014 ASUB
C106	ECJ1VF1H104Z	0.1U	1	MAIN
C107	ECJ1VG1H101J	100P	1	MAIN
C108	ECJ1VF1H104Z	0.1U	1	MAIN
C110	ECJ1VF1H104Z	0.1U	1	MAIN
C111	ECJ1VG1H101J	100P	1	MAIN
C112	ECJ1VF1H104Z	0.1U	1	MAIN
C113,14	ECJ1VG1H221J	220P	2	MAIN
C115	ECJ1VG1H102J	0.001U	1	MAIN
C116	ECJ1VG1H221J	220P	1	MAIN
C118,19	ECJ1VG1H221J	220P	2	MAIN
C121	ECJ1VG1H221J	220P	1	MAIN
C123-26	ECJ1VF1H104Z	0.1U	4	MAIN
C128	ECJ1VG1H101J	100P	1	MAIN
C129	ECJ1VF1H104Z	0.1U	1	MAIN
C130-35	ECJ1VG1H101J	100P	6	MAIN
C136	ECJ1VG1H100D	10P	1	MAIN
C137	ECJ1VG1H101J	100P	1	MAIN
C139,40	ECJ1VG1H101J	100P	2	MAIN
C141	ECJ1VF1H104Z	0.1U	1	MAIN

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C142	ECJ1VG1H101J	100P	1	MAIN
C143	ECJ1VG1H100D	10P	1	MAIN
C144	ECJ1VG1H101J	100P	1	MAIN
C147	ECA0JM102	6V 1000U	1	MAIN
C148	ECJ1VG1H101J	100P	1	MAIN
C150,51	ECJ1VF1H104Z	0.1U	2	MAIN
C154	ECJ1VF1H104Z	0.1U	1	MAIN
C155	ECJ1VB1H222K	0.0022U	1	MAIN
C156	ECJ1VB1H682K	0.0068U	1	MAIN
C157	ECJ1VF1H104Z	0.1U	1	MAIN
C158	ECJ1VG1H221J	220P	1	MAIN
C160	EEVHB1V100R	35V 10U	1	MAIN
C162	ECJ1VF1H104Z	0.1U	1	MAIN
C165	ECA0JM102	6V 1000U	1	MAIN
C167	ECA2AM220B	100V 22U	1	MAIN
C168	ECJ1VF1H104Z	0.1U	1	MAIN
C170	ECJ1VF1H104Z	0.1U	1	MAIN
C171	ECJ1VB1H222K	0.0022U	1	MAIN
C173	ECJ1VF1H104Z	0.1U	1	MAIN
C174	ECJ1VB1H682K	0.0068U	1	MAIN
C175,76	ECJ1VF1H104Z	0.1U	2	MAIN
C177,78	ECJ1VG1H470J	47P	2	MAIN
C181,82	EEVHB1C100R	16V 10U	2	MAIN
C183	ECJ1VF1H104Z	0.1U	1	MAIN
C185	ECJ1VF1H104Z	0.1U	1	MAIN
C186	ECJ1VB1H103K	0.01U	1	MAIN
C187	EEVHB1H1R0R	50V 1U	1	MAIN
C188	ECJ1VF1H104Z	0.1U	1	MAIN
C189	ECRR1H104ZF1	0.1U	1	F1E1H1040023 MAIN
C190	ECJ1VF1H104Z	0.1U	1	MAIN
C191	ECJ1VG1H681J	680P	1	MAIN
C196,97	ECJ1VG1H151J	150P	2	MAIN
C198	ECA1JM220B	22U	1	MAIN
C199	ECJ1VF1H104Z	0.1U	1	MAIN
C200,01	EEVHB1H1R0R	50V 1U	2	MAIN
C202	ECJ1VF1H104Z	0.1U	1	MAIN
C203,04	ECJ1VG1H471J	470P	2	MAIN
C205-09	ECJ1VF1H104Z	0.1U	5	MAIN
C210	EEVHB1C100R	16V 10U	1	MAIN
C211	EEVHB0J101P	6V 100U	1	MAIN
C212,13	ECJ1VF1H104Z	0.1U	2	MAIN
C214,15	ECJ1VG1H471J	470P	2	MAIN
C218-21	ECJ1VF1H104Z	0.1U	4	MAIN
C222	ECJ1VG1H330J	33P	1	MAIN
C223	EEVHB1H2R2R	50V 2.2U	1	MAIN
C224,25	ECJ1VF1H104Z	0.1U	2	MAIN
C226-29	ECJ1VG1H101J	100P	4	MAIN
C230	ECJ1VF1H104Z	0.1U	1	MAIN
C231,32	EEVHB1C100R	16V 10U	2	MAIN
C233,34	EEVHB1H1R0R	50V 1U	2	MAIN
C235,36	ECJ1VF1H104Z	0.1U	2	MAIN
C240	EEVHB0J101P	6V 100U	1	MAIN
C242,43	EEVHB1H1R0R	50V 1U	2	MAIN
C244	EEVHB0J101P	6V 100U	1	MAIN

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C245	ECJ1VG1H680J	68P	1	MAIN
C246	ECJ1VF1H104Z	0.1U	1	MAIN
C247	ECJ1VB1A224K	0.22U	1	MAIN
C250	ECJ1VF1H104Z	0.1U	1	MAIN
C251	ECJ1VB1H472K	0.0047U	1	MAIN
C254,55	ECJ1VF1H104Z	0.1U	2	MAIN
C256	ECJ1VG1H150J	15P	1	MAIN
C257,58	ECJ1VG1H470J	47P	2	MAIN
C259	ECJ1VG1H102J	0.001U	1	MAIN
C260-63	ECJ1VF1H104Z	0.1U	4	MAIN
C264,65	ECJ1VG1H470J	47P	2	MAIN
C266	ECJ1VF1H104Z	0.1U	1	MAIN
C267	ECJ1VB1A224K	0.22U	1	MAIN
C275	EEVHB1H1R0R	50V 1U	1	MAIN
C276	EECS5R5V105	5.2V 1F	1	MAIN
C277	ECJ1VF1H104Z	0.1U	1	MAIN
C278	ERJ3GEYJ681V	680	1	D0GB681JA002 MAIN
C5001	ECJ1VF1H104Z	0.1U	1	INV
C5002	ECEA1AKS221	6V 220P	1	INV
C5003	ECQV1H104JM3	0.1U	1	INV
C5004	ECCD3F180JGE	18PF	1	INV
CN1	K1KA16A00172	CONNECTOR	1	MAIN
CN1	QJSG022AA	CONNECTOR	1	K1FB104B0023 JACK
CN1	QJUG00703AA	CONNECTOR	1	HP
CN1	RJS1A6215-1	CONNECTOR	1	K1MN15C00003 CPL
CN1	RJS1A6215-1	CONNECTOR	1	K1MN15C00003 CPR
CN1	SJPG7JS030A	CONNECTOR	1	AS
CN2	K1KA05A00257	CONNECTOR	1	MAIN
CN2	K1KA06C00008	CONNECTOR	1	CPL
CN2	K1KA08C00005	CONNECTOR	1	CPR
CN2	SJPG1JS140A	CONNECTOR	1	AS
CN2	SJPG1JS140A	CONNECTOR	1	JACK
CN2	SJPG2JS060A	CONNECTOR	1	HP
CN3	SJPG1JS060A	CONNECTOR	1	AS
CN3	SJPG1JS160A	CONNECTOR	1	MKB1
CN3	SJPG2JS050A	CONNECTOR	1	CPL
CN3	SJPG2JS050A	CONNECTOR	1	HP
CN3	SJPG7JS020A	CONNECTOR	1	JACK
CN4	SJPG1320A	CONNECTOR	1	AS
CN4	SJPG1JS080A	CONNECTOR	1	JACK
CN5	SJPG1310A	CONNECTOR	1	AS
CN5	SJPG7JS040A	CONNECTOR	1	JACK
CN6	QJTG04309AA	CONNECTOR	1	AS
CN7	QEUGQ8H08BCZ	CONNECTOR	1	MKB2
CN7	QJTG04309AA	CONNECTOR	1	AS
CN8	QJUG05309AA	CONNECTOR	1	ASUB
CN9	K1KA15A00116	CONNECTOR	1	MAIN
CN9	QJUG05309AA	CONNECTOR	1	ASUB
CN10	K1KA15A00116	CONNECTOR	1	MAIN
CN11	TJSF34113A	CONNECTOR	1	K1KA13A00049 MAIN
CN13	SJPG1JS140A	CONNECTOR	1	MAIN
CN14	TJSF43711	CONNECTOR	1	K1KA11B00040 MAIN
CN16	K1KA05A00257	CONNECTOR	1	MAIN

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
CN17	SJPG1JS080A	CONNECTOR	1	MAIN
CN18	SJPG1JS140A	CONNECTOR	1	MAIN
CN100	K1MN15C00003	CONNECTOR	1	K1MN15C00003 CPCL
CN100	K1MN15C00003	CONNECTOR	1	K1MN15C00003 CPCR
CN5002	SJPG2JS150A	CONNECTOR	1	INV
CN5003	K1KA12B00116	CONNECTOR	1	INV
CN5005	K1KA02B00100	CONNECTOR	1	INV
D1	ERA1502V5	DIODE	1	B0EAKM000061 AS
D1	MA165	DIODE	1	MA2C165 MKB1
D1	MA165TA5	DIODE	1	MA2C16500E CPL
D1	MA165TA5	DIODE	1	MA2C16500E JACK
D1	MA165TA5	DIODE	1	MA2C16500E HP
D1	MA165TA5	DIODE	1	MA2C16500E CPR
D1	MA2J11100L	DIODE	1	MAIN
D2	ERA1502V5	DIODE	1	B0EAKM000061 AS
D2	MA165	DIODE	1	MA2C165 MKB1
D2	MA165TA5	DIODE	1	MA2C16500E CPL
D2	MA165TA5	DIODE	1	MA2C16500E JACK
D2	MA2J11100L	DIODE	1	MAIN
D3	MA165	DIODE	1	MA2C165 MKB1
D3	MA165TA5	DIODE	1	MA2C16500E CPL
D3	MA165TA5	DIODE	1	MA2C16500E JACK
D3	MA2J11100L	DIODE	1	MAIN
D3	SVDS3V40	DIODE	1	⚠ B0EAKM000066 AS
D4	MA165	DIODE	1	MA2C165 MKB1
D4	MA165TA5	DIODE	1	MA2C16500E CPL
D4	MA165TA5	DIODE	1	MA2C16500E JACK
D4	MA165TA5	DIODE	1	MA2C16500E CPR
D4	MA2J11100L	DIODE	1	MAIN
D5	MA165	DIODE	1	MA2C165 MKB1
D5	MA165TA5	DIODE	1	MA2C16500E CPL
D5	MA165TA5	DIODE	1	MA2C16500E CPR
D5	MA165TA5	DIODE	1	MA2C16500E JACK
D5	MA2J11100L	DIODE	1	MAIN
D5	SVDS3V40	DIODE	1	⚠ B0EAKM000066 AS
D6	MA165	DIODE	1	MA2C165 MKB1
D6	MA165TA5	DIODE	1	MA2C16500E CPL
D6	MA2J11100L	DIODE	1	MAIN
D7	MA165	DIODE	1	MA2C165 MKB1
D7	MA165TA5	DIODE	1	MA2C16500E CPL
D7	MA2J11100L	DIODE	1	MAIN
D7	SVDS3V40	DIODE	1	⚠ B0EAKM000066 AS
D8	MA165	DIODE	1	MA2C165 MKB1
D8	MA165TA5	DIODE	1	MA2C16500E CPL
D8	MA2J11100L	DIODE	1	MAIN
D9	MA165	DIODE	1	MA2C165 MKB1
D9	MA165TA5	DIODE	1	MA2C16500E CPL
D9	MA165TA5	DIODE	1	MA2C16500E CPR
D9	MA2J11100L	DIODE	1	MAIN
D9	SVDS3V40	DIODE	1	⚠ B0EAKM000066 AS
D10	MA165	DIODE	1	MA2C165 MKB1
D10	MA165TA5	DIODE	1	MA2C16500E CPL

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D10	MA2J11100L	DIODE	1	MAIN
D11	ERA1502V5	DIODE	1	B0EAKM000061 AS
D11	MA165	DIODE	1	MA2C165 MKB1
D11	MA165TA5	DIODE	1	MA2C16500E CPL
D11	MA2J11100L	DIODE	1	MAIN
D12	MA165	DIODE	1	MA2C165 MKB1
D12	MA165TA5	DIODE	1	MA2C16500E CPL
D12	MA165TA5	DIODE	1	MA2C16500E CPR
D12	MA2051LF	DIODE	1	MAZ2051000LF MAIN
D13	MA165	DIODE	1	MA2C165 MKB1
D13	MA165TA5	DIODE	1	MA2C16500E CPL
D13	MA165TA5	DIODE	1	MA2C16500E CPR
D14	EK04W	DIODE	1	B0JAME000042 AS
D14	MA165	DIODE	1	MA2C165 MKB1
D14	MA165TA5	DIODE	1	MA2C16500E CPL
D15	MA165	DIODE	1	MA2C165 MKB1
D15	MA165TA5	DIODE	1	MA2C16500E CPL
D15	MA2QD0100L	DIODE	1	MAIN
D16	MA165	DIODE	1	MA2C165 MKB1
D16	MA165TA5	DIODE	1	MA2C16500E CPL
D16	MA2J11100L	DIODE	1	MAIN
D16	MA4160M	DIODE	1	MAZ41600M AS
D17	MA165	DIODE	1	MA2C165 MKB1
D17	MA165TA5	DIODE	1	MA2C16500E CPL
D17	MA2J11100L	DIODE	1	MAIN
D17	MA4180TA	DIODE	1	MAZ418000F AS
D18	MA165	DIODE	1	MA2C165 MKB1
D18	MA165TA5	DIODE	1	MA2C16500E CPL
D18	MA165TA5	DIODE	1	MA2C16500E CPR
D18	MA4160M	DIODE	1	MAZ41600M AS
D18	MAZ80560ML	ZENER	1	MAIN
D19	MA1240MTR	ZENER	1	MAZ12400MC MAIN
D19	MA165	DIODE	1	MA2C165 MKB1
D19	MA165TA5	DIODE	1	MA2C16500E CPL
D19	MA165TA5	DIODE	1	MA2C16500E CPR
D19	MA4180TA	DIODE	1	MAZ418000F AS
D20	EK04W	DIODE	1	B0JAME000042 AS
D20	MA165	DIODE	1	MA2C165 MKB1
D20	MA165TA5	DIODE	1	MA2C16500E CPL
D20	MA2062LF	ZENER	1	MAZ2062000LF MAIN
D21	MAZ10510MC	ZENER	1	MAZ10510MC MAIN
D21	MA165	DIODE	1	MA2C165 MKB1
D21	MA165TA5	DIODE	1	MA2C16500E AS
D21	MA165TA5	DIODE	1	MA2C16500E CPL
D22	EK04W	DIODE	1	B0JAME000042 AS
D22	MA165	DIODE	1	MA2C165 MKB1
D22	MA165TA5	DIODE	1	MA2C16500E CPL
D22	MA165TA5	DIODE	1	MA2C16500E CPR
D22	MA2J11100L	DIODE	1	MAIN
D23	MA165	DIODE	1	MA2C165 MKB1
D23	MA165TA5	DIODE	1	MA2C16500E AS
D23	MA165TA5	DIODE	1	MA2C16500E CPL
D23	MA3X152E0L	DIODE	1	MAIN
D24	MA165	DIODE	1	MA2C165 MKB1

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D24	MA165TA5	DIODE	1	MA2C16500E AS
D24	MA165TA5	DIODE	1	MA2C16500E CPR
D24	MA165TA5	DIODE	1	MA2C16500E CPL
D24	MAZ80330HL	ZENER	1	MAIN
D25	MA165	DIODE	1	MA2C165 MKB1
D25	MA165TA5	DIODE	1	MA2C16500E CPL
D25	MA165TA5	DIODE	1	MA2C16500E CPR
D25	MA3X152E0L	DIODE	1	MAIN
D25	MA4220M	DIODE	1	MAZ42200M AS
D26	MA165	DIODE	1	MA2C165 MKB1
D26	MA165TA5	DIODE	1	MA2C16500E CPL
D26	MA165TA5	DIODE	1	MA2C16500E CPR
D26	MA2QD0100L	DIODE	1	MAIN
D26	MA4220M	DIODE	1	MAZ42200M AS
D27	MA165	DIODE	1	MA2C165 MKB1
D27	MA165TA5	DIODE	1	MA2C16500E CPL
D27	MA165TA5	DIODE	1	MA2C16500E CPR
D27	MA2J11100L	DIODE	1	MAIN
D28	MA165	DIODE	1	MA2C165 MKB1
D28	MA165TA5	DIODE	1	MA2C16500E CPL
D28	MA165TA5	DIODE	1	MA2C16500E CPR
D28	MA2J11100L	DIODE	1	MAIN
D29	MA165	DIODE	1	MA2C165 MKB1
D29	MA165TA5	DIODE	1	MA2C16500E CPL
D29	MA165TA5	DIODE	1	MA2C16500E CPR
D29	MA2J11100L	DIODE	1	MAIN
D30	MA165	DIODE	1	MA2C165 MKB1
D30	MA165TA5	DIODE	1	MA2C16500E CPL
D30	MA165TA5	DIODE	1	MA2C16500E CPR
D30	MA2J11100L	DIODE	1	MAIN
D31	MA165	DIODE	1	MA2C165 MKB1
D31	MA165TA5	DIODE	1	MA2C16500E CPL
D31	MAZ80560ML	ZENER	1	MAIN
D32	MA165	DIODE	1	MA2C165 MKB1
D32	MA165TA5	DIODE	1	MA2C16500E CPL
D32	MA165TA5	DIODE	1	MA2C16500E CPR
D32	MAZ80510LL	DIODE	1	MAIN
D33	MA165	DIODE	1	MA2C165 MKB1
D33	MA165TA5	DIODE	1	MA2C16500E CPL
D33	MA165TA5	DIODE	1	MA2C16500E CPR
D33	MA2QD0100L	DIODE	1	MAIN
D34	MA165	DIODE	1	MA2C165 MKB1
D34	MA165TA5	DIODE	1	MA2C16500E CPR
D35	MA165	DIODE	1	MA2C165 MKB1
D35	MA165TA5	DIODE	1	MA2C16500E CPR
D35	MA2J72800L	DIODE	1	MAIN
D36	MA165	DIODE	1	MA2C165 MKB1
D36	MA165TA5	DIODE	1	MA2C16500E CPR
D36	MA2Z30400L	DIODE	1	MAIN
D37	MA165	DIODE	1	MA2C165 MKB1
D37	MA165TA5	DIODE	1	MA2C16500E CPR
D37	MA2QD0100L	DIODE	1	MAIN
D38	MA165	DIODE	1	MA2C165 MKB1
D38	MA165TA5	DIODE	1	MA2C16500E CPR

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D39,40	MA165	DIODE	2	MA2C165 MKB1
D40	MA165TA5	DIODE	1	MA2C16500E CPR
D41	MA165	DIODE	1	MA2C165 MKB1
D41	MA165TA5	DIODE	1	MA2C16500E CPL
D41	MA165TA5	DIODE	1	MA2C16500E CPR
D42	MA165	DIODE	1	MA2C165 MKB1
D42	MA165TA5	DIODE	1	MA2C16500E CPL
D42	MA165TA5	DIODE	1	MA2C16500E CPR
D43	MA165	DIODE	1	MA2C165 MKB1
D43	MA165TA5	DIODE	1	MA2C16500E CPL
D43	MA165TA5	DIODE	1	MA2C16500E CPR
D44	MA165	DIODE	1	MA2C165 MKB1
D44	MA165TA5	DIODE	1	MA2C16500E CPR
D45,46	MA165	DIODE	2	MA2C165 MKB1
D47	MA165TA5	DIODE	1	MA2C16500E CPL
D47	MA165	DIODE	1	MA2C165 MKB1
D48,49	MA165	DIODE	2	MA2C165 MKB1
D49	MA165TA5	DIODE	1	MA2C16500E CPR
D50	MA165	DIODE	1	MA2C165 MKB1
D50	MA165TA5	DIODE	1	MA2C16500E CPR
D51	MA165	DIODE	1	MA2C165 MKB1
D51	MA165TA5	DIODE	1	MA2C16500E CPR
D52	MA165	DIODE	1	MA2C165 MKB1
D52	MA165TA5	DIODE	1	MA2C16500E CPR
D53	MA165	DIODE	1	MA2C165 MKB1
D53	MA165TA5	DIODE	1	MA2C16500E CPR
D54	MA165	DIODE	1	MA2C165 MKB1
D54	MA165TA5	DIODE	1	MA2C16500E CPR
D55	MA165	DIODE	1	MA2C165 MKB1
D55	MA165TA5	DIODE	1	MA2C16500E CPR
D56	MA165	DIODE	1	MA2C165 MKB1
D56	MA165TA5	DIODE	1	MA2C16500E CPR
D57	MA165	DIODE	1	MA2C165 MKB1
D57	MA165TA5	DIODE	1	MA2C16500E CPR
D58,59	MA165	DIODE	2	MA2C165 MKB1
D59	MA165TA5	DIODE	1	MA2C16500E CPR
D60	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPL
D60	MA165	DIODE	1	MA2C165 MKB1
D60	MA165TA5	DIODE	1	MA2C16500E CPR
D61	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPL
D61	MA165	DIODE	1	MA2C165 MKB1
D61	MA165TA5	DIODE	1	MA2C16500E CPR
D62	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPL
D62	MA165	DIODE	1	MA2C165 MKB1
D62	MA165TA5	DIODE	1	MA2C16500E CPR
D63	LN382GPXVTX3	LED(GREEN)	1	LNJ382GKGX02 CPL
D63	MA165	DIODE	1	MA2C165 MKB1
D63	MA165TA5	DIODE	1	MA2C16500E CPR
D64	LN382GPXVTX3	LED(GREEN)	1	LNJ382GKGX02 CPL
D64	MA165	DIODE	1	MA2C165 MKB1
D64	MA165TA5	DIODE	1	MA2C16500E CPR
D65	LN382GPXVTX3	LED(GREEN)	1	LNJ382GKGX02 CPL
D65	MA165	DIODE	1	MA2C165 MKB1
D66	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPL

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D66	MA165	DIODE	1	MA2C165 MKB1
D67	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPCL
D67	MA165	DIODE	1	MA2C165 MKB1
D68	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPCL
D68	MA165	DIODE	1	MA2C165 MKB1
D69	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPCL
D69	MA165	DIODE	1	MA2C165 MKB1
D70	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPL
D70	MA165	DIODE	1	MA2C165 MKB1
D71	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPL
D71	MA165	DIODE	1	MA2C165 MKB1
D72	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPL
D72	MA165	DIODE	1	MA2C165 MKB1
D73	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPL
D73	MA165	DIODE	1	MA2C165 MKB1
D74	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPL
D74	MA165	DIODE	1	MA2C165 MKB1
D75	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPL
D75	MA165	DIODE	1	MA2C165 MKB1
D76	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPL
D76-79	MA165	DIODE	4	MA2C165 MKB1
D80	LN382GPXVTX3	LED(GREEN)	1	LNJ382GKGX02 CPL
D80	MA165	DIODE	1	MA2C165 MKB1
D81	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPL
D81	MA165	DIODE	1	MA2C165 MKB1
D81	MA165TA5	DIODE	1	MA2C16500E CPR
D82	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPL
D82	MA165	DIODE	1	MA2C165 MKB1
D82	MA165TA5	DIODE	1	MA2C16500E CPR
D83	LN382GPXVTX3	LED(GREEN)	1	LNJ382GKGX02 CPL
D83	MA165	DIODE	1	MA2C165 MKB1
D83	MA165TA5	DIODE	1	MA2C16500E CPR
D84	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPL
D84	MA165	DIODE	1	MA2C165 MKB1
D84	MA165TA5	DIODE	1	MA2C16500E CPR
D85	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPL
D85	MA165	DIODE	1	MA2C165 MKB1
D85	MA165TA5	DIODE	1	MA2C16500E CPR
D86	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPL
D86	MA165	DIODE	1	MA2C165 MKB1
D86	MA165TA5	DIODE	1	MA2C16500E CPR
D87	MA165	DIODE	1	MA2C165 MKB1
D87	MA165TA5	DIODE	1	MA2C16500E CPR
D88,89	MA165	DIODE	2	MA2C165 MKB2
D90	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPR
D90	LN382GPXVTX3	LED(GREEN)	1	LNJ382GKGX02 CPL
D90	MA165	DIODE	1	MA2C165 MKB2
D91	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPR
D91	LN382GPXVTX3	LED(GREEN)	1	LNJ382GKGX02 CPL
D91	MA165	DIODE	1	MA2C165 MKB2
D92	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPR
D92	LN382GPXVTX3	LED(GREEN)	1	LNJ382GKGX02 CPL
D92	MA165	DIODE	1	MA2C165 MKB2
D93	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPR

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D93	LN382GPXVTX3	LED(GREEN)	1	LNJ382GKGX02 CPL
D93	MA165	DIODE	1	MA2C165 MKB2
D94	LN382GPXVTX3	LED(GREEN)	1	LNJ382GKGX02 CPL
D94	LN382GPXVTX3	LED(GREEN)	1	LNJ382GKGX02 CPR
D94	MA165	DIODE	1	MA2C165 MKB2
D95	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPL
D95	MA165	DIODE	1	MA2C165 MKB2
D96	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPL
D96	LN382GPXVTX3	LED(GREEN)	1	LNJ382GKGX02 CPR
D96	MA165	DIODE	1	MA2C165 MKB2
D97	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPR
D97	MA165	DIODE	1	MA2C165 MKB2
D98	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPCR
D98	MA165	DIODE	1	MA2C165 MKB2
D99	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPCR
D99	MA165	DIODE	1	MA2C165 MKB2
D100	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPL
D100	MA165	DIODE	1	MA2C165 MKB2
D101	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPR
D101	MA165	DIODE	1	MA2C165 MKB2
D101	MA165TA5	DIODE	1	MA2C16500E ASUB
D102	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPR
D102	MA165	DIODE	1	MA2C165 MKB2
D102	MA165TA5	DIODE	1	MA2C16500E ASUB
D103	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPL
D103	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPR
D103	MA165	DIODE	1	MA2C165 MKB2
D103	W6E05	JAMPER	1	ASUB
D104	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPL
D104	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPR
D104	MA165	DIODE	1	MA2C165 MKB2
D104	W6E05	JAMPER	1	ASUB
D105	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPR
D105	MA165	DIODE	1	MA2C165 MKB2
D106	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPR
D106	LN382GPXVTX3	LED(GREEN)	1	LNJ382GKGX02 CPL
D106	MA165	DIODE	1	MA2C165 MKB2
D107	LN382GPXVTX3	LED(GREEN)	1	LNJ382GKGX02 CPR
D107	MA165	DIODE	1	MA2C165 MKB2
D107	MA165TA5	DIODE	1	MA2C16500E ASUB
D108	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPR
D108	MA165	DIODE	1	MA2C165 MKB2
D108	MA165TA5	DIODE	1	MA2C16500E ASUB
D109	LN382GPXVTX3	LED(GREEN)	1	LNJ382GKGX02 CPR
D109	MA165	DIODE	1	MA2C165 MKB2
D109	W6E05	JAMPER	1	ASUB
D110	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPR
D110	LN382GPXVTX3	LED(GREEN)	1	LNJ382GKGX02 CPL
D110	MA165	DIODE	1	MA2C165 MKB2
D110	W6E05	JAMPER	1	ASUB
D111	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPL
D111	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPR
D111	MA165	DIODE	1	MA2C165 MKB2
D112	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPL

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D112	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPR
D112	MA165	DIODE	1	MA2C165 MKB2
D113	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPL
D113	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPR
D113	MA165	DIODE	1	MA2C165 MKB2
D114	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPL
D114	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPR
D114	MA165	DIODE	1	MA2C165 MKB2
D115	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPL
D115	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPR
D115	MA165	DIODE	1	MA2C165 MKB2
D116	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPR
D116	MA165	DIODE	1	MA2C165 MKB2
D117	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPR
D117	MA165	DIODE	1	MA2C165 MKB2
D118	LN382GPXVTX3	LED(GREEN)	1	LNJ382GKGX02 CPR
D118	MA165	DIODE	1	MA2C165 MKB2
D119	LN282RPXVTX3	LED(RED)	1	LNJ282RKRX02 CPR
D119	MA165	DIODE	1	MA2C165 MKB2
D120	LN382GPXVTX3	LED(GREEN)	1	LNJ382GKGX02 CPR
D120	MA165	DIODE	1	MA2C165 MKB2
D121	LN382GPXVTX3	LED(GREEN)	1	LNJ382GKGX02 CPR
D122-24	LN282RPXVTX3	LED(RED)	3	LNJ282RKRX02 CPR
D126-28	LN282RPXVTX3	LED(RED)	3	LNJ282RKRX02 CPR
D129	LN382GPXVTX3	LED(GREEN)	1	LNJ382GKGX02 CPR
D131,32	LN382GPXVTX3	LED(GREEN)	2	LNJ382GKGX02 CPR
D133-39	LN282RPXVTX3	LED(RED)	7	LNJ282RKRX02 CPR
D140	LN382GPXVTX3	LED(GREEN)	1	LNJ382GKGX02 CPR
D142-44	LN382GPXVTX3	LED(GREEN)	3	LNJ382GKGX02 CPR
D150,51	MA165TA5	DIODE	2	MA2C16500E CPCL
D151	MA165TA5	DIODE	1	MA2C16500E CPCR
D152	MA165TA5	DIODE	1	MA2C16500E CPCL
D152	MA165TA5	DIODE	1	MA2C16500E CPCR
D153,54	MA165TA5	DIODE	2	MA2C16500E CPCL
D155-57	MA165TA5	DIODE	3	MA2C16500E CPCR
D158,59	MA165TA5	DIODE	2	MA2C16500E CPCL
D159	MA165TA5	DIODE	1	MA2C16500E CPCR
D160	MA165TA5	DIODE	1	MA2C16500E CPCL
D160	MA165TA5	DIODE	1	MA2C16500E CPCR
D161	MA165TA5	DIODE	1	MA2C16500E CPCL
D163,64	MA165TA5	DIODE	2	MA2C16500E CPCR
D166	MA165TA5	DIODE	1	MA2C16500E CPCL
D166	MA165TA5	DIODE	1	MA2C16500E CPCR
D167	MA165TA5	DIODE	1	MA2C16500E CPCL
D167	MA165TA5	DIODE	1	MA2C16500E CPCR
D168	MA165TA5	DIODE	1	MA2C16500E CPCL
D168	MA165TA5	DIODE	1	MA2C16500E CPCR
D169	MA165TA5	DIODE	1	MA2C16500E CPCL
D169	MA165TA5	DIODE	1	MA2C16500E CPCR
D170	MA165TA5	DIODE	1	MA2C16500E CPCL
D170	MA165TA5	DIODE	1	MA2C16500E CPCR
D171	MA165TA5	DIODE	1	MA2C16500E CPCL
D171	MA165TA5	DIODE	1	MA2C16500E CPCR
D172	MA165TA5	DIODE	1	MA2C16500E CPCL

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D172	MA165TA5	DIODE	1	MA2C16500E CPCR
D173	MA165TA5	DIODE	1	MA2C16500E CPCL
D173	MA165TA5	DIODE	1	MA2C16500E CPCR
D174	MA165TA5	DIODE	1	MA2C16500E CPCL
D174	MA165TA5	DIODE	1	MA2C16500E CPCR
D175	MA165TA5	DIODE	1	MA2C16500E CPCL
D175	MA165TA5	DIODE	1	MA2C16500E CPCR
D176	MA165TA5	DIODE	1	MA2C16500E CPCL
D176	MA165TA5	DIODE	1	MA2C16500E CPCR
D177	MA165TA5	DIODE	1	MA2C16500E CPCL
D177	MA165TA5	DIODE	1	MA2C16500E CPCR
D178	MA165TA5	DIODE	1	MA2C16500E CPCL
D178	MA165TA5	DIODE	1	MA2C16500E CPCR
D179	MA165TA5	DIODE	1	MA2C16500E CPCL
D179	MA165TA5	DIODE	1	MA2C16500E CPCR
D180	MA165TA5	DIODE	1	MA2C16500E CPCL
D180	MA165TA5	DIODE	1	MA2C16500E CPCR
D181	MA165TA5	DIODE	1	MA2C16500E CPCL
D181	MA165TA5	DIODE	1	MA2C16500E CPCR
F1	XBA1C40NB100	FUSE 4A 125V	1	⚠ JACK P
F1	XBA2C20TB0L	FUSE T2AL 250V	1	⚠ K5Y202B00002 JACK GM
F2	XBA2C10TB0	FUSE T1AL 250V	1	⚠ K5D102BL0005 JACK GM
F3	XBA2C10TB0	FUSE T1AL 250V	1	⚠ K5D102BL0005 JACK EB
F3	XBA2C10TB0	FUSE T1AL 250V	1	⚠ K5D102BL0005 JACK GM
FP3,P4	K5G702AA0003	FUSE	2	⚠ AS
FP5,P6	K5G3113A0001	FUSE	2	⚠ ; AS
FP7	K5G202AA0003	FUSE	1	MAIN
IC1	M37471M2196S	8BIT MICRO COMPUTER	1	C2BBDB000023 CPR
IC1	C0AABB000054	OPAMP	1	AS
IC1	HD74LS138P	DECODER	1	C0JACN000001 MKB1
IC1	M37471M2196S	8BIT MICRO COMPUTER	1	C2BBDB000023 CPL
IC1	SVIGTLP513	PHOTO COUPLER	1	JACK
IC1	TC74VHC138F	3 TO 8 DECORDER	1	C0JBAN000074 MAIN
IC1	C0AABB000054	OPAMP	1	HP
IC2	C0JBAF000162	IC	1	MAIN
IC2	HD74LS07P	HEX BUFFER	1	C0JACB000006 CPL
IC2	HD74LS138P	DECODER	1	C0JACN000001 MKB2
IC2	C0AABB000054	OPAMP	1	AS
IC2	HD74LS07P	HEX BUFFER	1	C0JACB000006 CPR
IC3	C0AABB000054	OPAMP	1	AS
IC3	C1BB00000709	SUB TONE GENERATOR	1	MAIN
IC3	HD74LS07P	HEX BUFFER	1	C0JACB000006 CPL
IC3	HD74LS138P	DECODER	1	C0JACN000001 MKB2
IC3	HD74LS07P	HEX BUFFER	1	C0JACB000006 CPR
IC4	C0AABB000054	OPAMP	1	AS
IC4	D74HC138P	DECODER	1	MKB2
IC5	C0AABB000054	OPAMP	1	AS
IC5	MN103002A	32 BIT MICRO CONTROLLER	1	MAIN
IC6	C0AABB000054	OPAMP	1	AS
IC6	TC7SH02FU	IC CMOS LOGIC	1	C0JBAD000071 MAIN

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
IC7	C0AABB000054	OPAMP	1	AS
IC7	M5218AFPE3	OP AMP	1	C0ABBB000163 MAIN
IC8	C0AABB000054	OPAMP	1	AS
IC8	C0ZBZ0000667	SPECTRAM SPREAD	1	MAIN
IC9	C0JBAE000140	2 INPUT OR GATE	1	MAIN
IC9	SVIGM5238L	RENER IC	1	C0AAEB000020 AS
IC10	QSIGX3C64014	64M MASKROM	1	MAIN
IC11	QSIGX3C64013	64M MASKROM	1	MAIN
IC13	TC74VHC08F	QUAD 2 INPUT AND GATE	1	C0JBAA000090 MAIN
IC14	C0JBAF000162	IC	1	MAIN
IC15	C0JBAA000102	INVERTER AND GATE	1	MAIN
IC16,17	C3ABMG000166	16M BIT PYNAMIC RAM	2	MAIN
IC22,23	RFKFXPR604	FLASH MEMORY WITH PROGRAM DISK	1	MAIN C3FBNG000016
IC24	C3CBND000047	IC	1	MAIN
IC28	TC7W32F	DUAL 2 INPUT OR GATE	1	C0JBAE000097 MAIN
IC31	C0JBAE000140	2 INPUT OR GATE	1	MAIN
IC32,33	JVAHC174AFEL	LOGIC IC	2	C0JBAF000303 MAIN
IC34	C3EBDC000020	EEPROM(2K)	1	MAIN
IC35	C3ABMG000166	16M BIT PYNAMIC RAM	1	MAIN
IC36	TC7SU04FT85L	LOGIC IC	1	C0JBAZ000519 MAIN
IC37	C2HBZA000008	DSP IC	1	MAIN
IC38	LC32V4265T25	4M DRAM	1	C3ABEG000002 MAIN
IC39	SED1354F2A	LCD CONTROLLER	1	C0HBA0000095 MAIN
IC41	TC7W04FTE12L	INVERTER	1	C0JBAB000178 MAIN
IC42	C1DB00000607	FDC	1	MAIN
IC44	MN1382CTX	RESET IC	1	MN1382CP MAIN
IC45	BA10393F-E2	COM PARATOR	1	C0BBBB000014 MAIN
IC46	TC7W00FTE12L	LOGIC IC	1	C0JBAC000112 MAIN
IC47	PCM1716ET2	D/A CONVERTER	1	C0FBBK000009 MAIN
IC48	C2CBGF000150	USB MICRO CONTROLLER	1	MAIN
IC49	C2BBGE000618	USB AUDIO	1	MAIN
IC50	C3CBPD000010	FLASH ROM	1	MAIN
IC51	M5218AFPE3	OP AMP	1	C0ABBB000163 MAIN
IC52	TC7S14F	SCHMITT TRIGGER	1	C0JBAZ000514 MAIN
IC53	PCM1800E-T1	A/D CONVERTER	1	C0FBAJ000004 MAIN
IC54	PCM1716ET2	D/A CONVERTER	1	C0FBBK000009 MAIN
IC55	PCM1800E-T1	A/D CONVERTER	1	C0FBAJ000004 MAIN
IC57	C0JBAZ000529	LOGIC IC	1	C0JBAZ000529 MAIN
IC59	M5218AFPE3	OP AMP	1	C0ABBB000163 MAIN
IC60	T74LCX16244A	IC	1	MAIN
IC61	M5218AFPE3	OP AMP	1	C0ABBB000163 MAIN
IC63	C0JBAZ000914	IC	1	MAIN
J71,72	ECEA1HSN010	1U 50V	2	AS
JK1	QJJG010AA	JACK HEADPHONE 1	1	HP
JK1	VJJ0544	Y/C CONNECTOR	1	K1CB104B0017 JACK
JK2	K1CB103B0008	MIDI_JACK	1	JACK
JK2	QJJG010AA	JACK HEADPHONE 1	1	HP
JK3	K1CB103B0008	MIDI_JACK	1	JACK
JK3	QJJG011AA	JK MIC	1	HP
JK4	K1CB103B0008	MIDI_JACK	1	JACK
JK6	K2AA2B000002	AC INLET	1	JACK EB
JK6	SJSD16-1	AC INLET	1	K2AB2K000003 JACK P

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
JK6	K2AA2B000002	AC INLET	1	JACK GM GT
JK7-10	K2HB102J0037	SINGLE JACK	4	JACK
JP1	ERJ3GEY0R00V	0	1	MAIN
JP5	ERJ3GEY0R00V	0	1	MAIN
L1	QLQGT3T131TA	COIL	1	G0B131Z00001 JACK
L1	G0ZZ00001936	COIL	1	AS
L1	QLQGT3T131TA	COIL	1	G0B131Z00001 HP
L2	G0ZZ00001936	COIL	1	AS
L2	QLQGT3T131TA	COIL	1	G0B131Z00001 HP
L2	QLQGT3T131TA	COIL	1	G0B131Z00001 JACK
L3	G0ZZ00001936	COIL	1	AS
L3	QLQGT3T131TA	COIL	1	G0B131Z00001 JACK
L4	G0ZZ00001936	COIL	1	AS
L4	QLQGT1T121LA	COIL	1	MAIN
L5	QLQGT3T131LA	COIL	1	AS
L5	QLQGT3T131TA	COIL	1	G0B131Z00001 JACK
L6	QLQGT1B800MA	COIL	1	⚠ G0C800Z00001 AS
L6	QLQGT3T131TA	COIL	1	G0B131Z00001 JACK
L7	QLQGT1D600LA	COIL	1	AS
L7	QLQGT3T131TA	COIL	1	G0B131Z00001 JACK
L8	QLQGT1D600LA	COIL	1	AS
L9	G0ZZ00001936	COIL	1	AS
L9	QLQGT1T121LA	COIL	1	MAIN
L10	G0ZZ00001936	COIL	1	AS
L11	G1C6R8J00003	COIL	1	MAIN
L11,12	QLQGT3T131TA	COIL	2	G0B131Z00001 JACK
L14	QLQGT2T100SA	COIL	1	⚠ G0B100Z00001 JACK
L5001-03	G0ZZ00001936	COIL	3	INV
L5004	QLQGT1B101KA	COIL	1	G0C101K00030 INV
P1	QPGG0524AA	PACKING CASE	1	
P1	QPGG0524AB	PACKING CASE	1	SX-PR604M
PCB1	SXPG238321A	MAIN PCB	1	
PCB2	SXPG238511D	HP/MIC PCB	1	
PCB3	SXPG239121A	AS PCB	1	
PCB4	SXPG218221	PKB PCB	1	
PCB5	SXPG238541C	JACK PCB	1	
PCB6	SXPG238321B	INV PCB	1	
PCB7	SXPG238421A	CPL PCB	1	
PCB8	SXPG238421B	CPR PCB	1	
PCB9	SXPG238511A	CPCL PCB	1	
PCB10	SXPG238511B	CPCR PCB	1	
PCB11	SXPG231111A	MKB1 PCB	1	
PCB12	SXPG231111B	MKB2 PCB	1	
PCB13	SXPG239111B	ASUB PCB	1	
Q1	2SA830STPB	TRANSISTOR	1	CPL
Q1	2SA830STPB	TRANSISTOR	1	CPR
Q1	2SB0709ARL	TRANSISTOR	1	MAIN
Q1	B1AACF000068	TRANSISTOR	1	HP
Q1	B1ACCF000041	TRANSISTOR	1	JACK

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Q2	2SA830STPB	TRANSISTOR	1	CPL
Q2	2SA830STPB	TRANSISTOR	1	CPR
Q2	2SD0601AQL	TRANSISTOR	1	MAIN
Q3	2SA830STPB	TRANSISTOR	1	CPL
Q3	2SA830STPB	TRANSISTOR	1	CPR
Q3	2SB946P	TRANSISTOR	1	2SB09460P MAIN
Q4	2SA830STPB	TRANSISTOR	1	CPL
Q4	2SA830STPB	TRANSISTOR	1	CPR
Q4	2SC2240GTPE2	TRANSISTOR	1	B1AACL000011 MAIN
Q5	2SA830STPB	TRANSISTOR	1	CPL
Q5	2SA830STPB	TRANSISTOR	1	CPR
Q5	B1AACF000068	TRANSISTOR	1	AS
Q6	2SA830STPB	TRANSISTOR	1	CPL
Q6	2SD2374A-P	TRANSISTOR	1	2SD2374AP AS
Q7	2SD0601AQL	TRANSISTOR	1	MAIN
Q7	B1ACCF000041	TRANSISTOR	1	AS
Q8	2SB1548A-P	TRANSISTOR	1	2SB1548AP AS
Q8	2SD0601AQL	TRANSISTOR	1	MAIN
Q9	2SC1815TPE2	TRANSISTOR	1	B1AACF000023 AS
Q9	2SD0592ARA	TRANSISTOR	1	MAIN
Q10	2SB946P	TRANSISTOR	1	2SB09460P MAIN
Q10	B1ACCF000041	TRANSISTOR	1	AS
Q11	2SC2240GTPE2	TRANSISTOR	1	B1AACL000011 MAIN
Q11	B1ACCF000041	TRANSISTOR	1	AS
Q12	2SD0592ARA	TRANSISTOR	1	AS
Q12	2SD0601AQL	TRANSISTOR	1	MAIN
Q13	2SB0621AHA	TRANSISTOR	1	AS
Q13	2SB0709ARL	TRANSISTOR	1	MAIN
Q14	2SD0592ARA	TRANSISTOR	1	AS
Q14	2SD0601AQL	TRANSISTOR	1	MAIN
Q15	2SB0621AHA	TRANSISTOR	1	AS
Q15,16	2SD0601AQL	TRANSISTOR	2	MAIN
Q16	FX30KMJ-3	TRANSISTOR	1	⚠ C0ZAZ0000107 AS
Q17	FS30KMJ-3	TRANSISTOR	1	⚠ C0ZAZ0000106 AS
Q17	UN511NTX	TRANSISTOR	1	UNR511N00L MAIN
Q18	2SB0709ARL	TRANSISTOR	1	MAIN
Q18	FX30KMJ-3	TRANSISTOR	1	⚠ C0ZAZ0000107 AS
Q19	FS30KMJ-3	TRANSISTOR	1	⚠ C0ZAZ0000106 AS
Q19	UN5216	TRANSISTOR	1	UNR521600L MAIN
Q20	2SD0601AQL	TRANSISTOR	1	MAIN
Q20	B1AACF000068	TRANSISTOR	1	AS
Q21	2SB0709ARL	TRANSISTOR	1	MAIN
Q21	B1AACF000068	TRANSISTOR	1	AS
Q22	2SB0709ARL	TRANSISTOR	1	MAIN
Q22	B1AACF000068	TRANSISTOR	1	AS
Q23	2SB0709ARL	TRANSISTOR	1	MAIN
Q23	B1AACF000068	TRANSISTOR	1	AS
Q24	2SD0601AQL	TRANSISTOR	1	MAIN
Q24	B1AACF000068	TRANSISTOR	1	AS
Q25	2SB970RSTX	TRANSISTOR	1	2SB09700HL MAIN
Q25	B1ACCF000041	TRANSISTOR	1	AS
Q26	2SD0601AQL	TRANSISTOR	1	MAIN
Q26-28	B1AACF000068	TRANSISTOR	3	AS

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Q29	B1ACCF000041	TRANSISTOR	1	AS
Q101	B1ACCF000041	TRANSISTOR	1	ASUB
Q102	B1AACF000068	TRANSISTOR	1	ASUB
Q103,04	B1ACCF000041	TRANSISTOR	2	ASUB
Q105	2SA970GTPE2	TRANSISTOR	1	B1ACCL000008 ASUB
Q106	2SC2240GTPE2	TRANSISTOR	1	B1AACL000011 ASUB
Q107	B1AACF000068	TRANSISTOR	1	ASUB
Q108	B1ACCF000041	TRANSISTOR	1	ASUB
Q109	2SA1285AFTA	TRANSISTOR	1	B1ACCL000006 ASUB
Q110	2SC3245AFTA	TRANSISTOR	1	B1AACL000009 ASUB
Q111	B1ACCF000041	TRANSISTOR	1	ASUB
Q112	B1AACF000068	TRANSISTOR	1	ASUB
Q113,14	B1ACCF000041	TRANSISTOR	2	ASUB
Q115	2SA970GTPE2	TRANSISTOR	1	B1ACCL000008 ASUB
Q116	2SC2240GTPE2	TRANSISTOR	1	B1AACL000011 ASUB
Q117	B1AACF000068	TRANSISTOR	1	ASUB
Q118	B1ACCF000041	TRANSISTOR	1	ASUB
Q119	2SA1285AFTA	TRANSISTOR	1	B1ACCL000006 ASUB
Q120	2SC3245AFTA	TRANSISTOR	1	B1AACL000009 ASUB
Q121	B1AACF000068	TRANSISTOR	1	ASUB
Q122	B1ACCF000041	TRANSISTOR	1	ASUB
Q123	B1AACF000068	TRANSISTOR	1	ASUB
Q124	B1ACCF000041	TRANSISTOR	1	ASUB
Q5001,02	B1AAKD000008	TRANSISTOR	2	INV
R1	ERDS2FJ103	10K	1	AS
R1	ERDS2FJ221	220	1	JACK
R1	ERDS2FJ471	470	1	CPR
R1	ERG1SJ470	1W 47	1	HP
R1	ERJ3GEYJ105V	1M	1	MAIN
R2	ERDS2FJ103	10K	1	AS
R2	ERDS2FJ221	220	1	CPR
R2	ERDS2FJ471	470	1	CPL
R2	ERDS2FJ680	68	1	JACK
R2	ERG1SJ470	1W 47	1	HP
R2	ERJ3GEYJ470V	47	1	MAIN
R3	ERDS2FJ221	220	1	CPL
R3	ERDS2FJ221	220	1	CPR
R3	ERDS2FJ332	3.3K	1	AS
R3	ERDS2FJ680	68	1	JACK
R3	ERG1SJ470	1W 47	1	HP
R3	ERJ3GEYJ470V	47	1	MAIN
R4	ERDS2FJ102	1K	1	AS
R4	ERDS2FJ151	150	1	JACK
R4	ERDS2FJ221	220	1	CPL
R4	ERDS2FJ471	470	1	CPR
R4	ERG1SJ470	1W 47	1	HP
R4	ERJ3GEYJ472V	4.7K	1	MAIN
R5	ERDS2FJ104	100K	1	HP
R5	ERDS2FJ330	33	1	JACK
R5	ERDS2FJ471	470	1	CPL
R5	ERDS2T0T	0	1	CPR
R5	ERJ3GEYJ221V	220	1	MAIN
R6	ERDS2FJ101	100	1	CPR

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R6	ERDS2FJ472	4.7K	1	CPL
R6	ERDS2FJ472	4.7K	1	HP
R6	ERDS2T0T	0	1	JACK
R6	ERJ3GEYJ101V	100	1	MAIN
R7	ERDS2FJ101	100	1	CPL
R7	ERDS2FJ103	10K	1	AS
R7	ERDS2FJ103	10K	1	CPR
R7	ERDS2FJ222	2200	1	HP
R7	ERDS2T0T	0	1	JACK
R7	ERJ3GEYJ470V	47	1	MAIN
R8	ERDS2FJ103	10K	1	AS
R8	ERDS2FJ104	100K	1	HP
R8	ERDS2FJ472	4.7K	1	PKB
R8	ERDS2FJ472	4.7K	1	CPL
R8	ERDS2T0T	0	1	JACK
R8	ERJ3GEYJ101V	100	1	MAIN
R9	ERDS2FJ103	10K	1	CPR
R9	ERDS2FJ103	10K	1	HP
R9	ERDS2FJ104	100K	1	AS
R9	ERDS2FJ331	330	1	JACK
R9	ERDS2FJ472	4.7K	1	PKB
R9	ERDS2FJ472	4.7K	1	CPL
R9	ERJ3GEYJ470V	47	1	MAIN
R10	ERDS2FJ104	100K	1	CPL
R10	ERDS2FJ333	33K	1	CPR
R10	ERDS2FJ472	4.7K	1	PKB
R10	ERDS2FJ473	47K	1	AS
R10	ERDS2FJ681	680	1	JACK
R10	ERDS2FJ683	68K	1	HP
R10	ERJ3GEYJ101V	100	1	MAIN
R11	ERDS2FJ103	10K	1	AS
R11	ERDS2FJ103	10K	1	CPR
R11	ERDS2FJ221	220	1	HP
R11	ERDS2FJ472	4.7K	1	CPL
R11	ERDS2FJ681	680	1	JACK
R11	ERJ3GEYJ221V	220	1	MAIN
R12	ERDS2FJ103	10K	1	CPR
R12	ERDS2FJ332	3.3K	1	AS
R12	ERDS2FJ332	3.3K	1	HP
R12	ERDS2FJ473	47K	1	CPL
R12	ERDS2T0T	0	1	JACK
R12	ERJ3GEY0R00V	0	1	MAIN
R13	ERDS2FJ102	1K	1	HP
R13	ERDS2FJ103	10K	1	CPR
R13	ERDS2FJ334	330K	1	AS
R13	ERDS2FJ473	47K	1	CPL
R13	ERJ3GEYJ221V	220	1	MAIN
R14	ERDS2FJ103	10K	1	CPL
R14	ERDS2FJ103	10K	1	CPR
R14	ERDS2FJ104	100K	1	AS
R14	ERDS2FJ681	680	1	JACK P
R14	ERJ3GEY0R00V	0	1	MAIN
R15	ERDS2FJ103	10K	1	CPR
R15	ERDS2FJ681	680	1	JACK P

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R15	ERDS2FJ683	68K	1	AS
R15	ERDS2T0T	0	1	CPL
R15	ERJ3GEYJ221V	220	1	MAIN
R16	ERDS2FJ103	10K	1	CPR
R16	ERDS2FJ104	100K	1	AS
R16	ERDS2FJ333	33K	1	CPL
R16	ERJ3GEY0R00V	0	1	MAIN
R17	ERD2FCJ6R8	6.8 FUSE TYPE	1	⚠ AS
R35	ERDS2FJ101	100	1	CPR
R17	ERDS2FJ103	10K	1	CPR
R17	ERJ3GEYJ102V	1K	1	MAIN
R18	ERDS2FJ103	10K	1	CPL
R18	ERDS2FJ103	10K	1	CPR
R18	ERDS2FJ220	22	1	AS
R18	ERJ3GEYJ221V	220	1	MAIN
R19	ERDS2FJ103	10K	1	CPL
R19	ERDS2FJ103	10K	1	CPR
R19	ERDS2FJ222	2200	1	AS
R19	ERJ3GEYJ102V	1K	1	MAIN
R20	ERD2FCJ4R7	4.7 FUSE TYPE	1	⚠ AS
R20	ERDS2FJ103	10K	1	CPL
R20	ERDS2FJ103	10K	1	CPR
R20	ERJ3GEYJ221V	220	1	MAIN
R21	ERD2FCG220	22 FUSE TYPE	1	⚠ AS
R21	ERDS2FJ103	10K	1	CPL
R21	ERDS2FJ103	10K	1	CPR
R21	ERJ3GEYJ472V	4.7K	1	MAIN
R22	ERDS2FJ103	10K	1	CPL
R22	ERDS2FJ103	10K	1	CPR
R22	ERDS2FJ683	68K	1	AS
R22	ERJ3GEYJ102V	1K	1	MAIN
R23	ERDS2FJ103	10K	1	CPL
R23	ERDS2FJ103	10K	1	CPR
R23	ERDS2FJ104	100K	1	AS
R23	ERJ3GEYJ104V	100K	1	D0GB104JA002 MAIN
R24	ERDS2FJ101	100	1	CPR
R24	ERDS2FJ103	10K	1	CPL
R24	ERDS2FJ220	22	1	AS
R24	ERJ3GEYJ103V	10K	1	D0GB103JA002 MAIN
R25	ERDS2FJ101	100	1	CPR
R25	ERDS2FJ103	10K	1	CPL
R25	ERDS2FJ222	2200	1	AS
R25	ERJ3GEYJ104V	100K	1	D0GB104JA002 MAIN
R26	ERD2FCJ4R7	4.7 FUSE TYPE	1	⚠ AS
R26	ERDS2FJ101	100	1	CPR
R26	ERDS2FJ103	10K	1	CPL
R26	ERJ3GEYJ472V	4.7K	1	MAIN
R27	ERD2FCG220	22 FUSE TYPE	1	⚠ AS
R27	ERDS2FJ101	100	1	CPR
R27	ERDS2FJ103	10K	1	CPL
R27	ERJ3GEYJ222V	2.2K	1	D0GB222JA002 MAIN
R28	ERDS2FJ101	100	1	CPR
R28	ERDS2FJ103	10K	1	CPL

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R28	ERJ3GEYJ681V	680	1	D0GB681JA002 MAIN
R29	ERDS2FJ101	100	1	CPR
R29	ERDS2FJ103	10K	1	CPL
R29	ERJ3GEYJ331V	330	1	MAIN
R29	ERQ2CJP6R8S	6.8 FUSE TYPE	1	⚠ AS
R30	ERDS2FJ101	100	1	CPL
R30	ERDS2FJ101	100	1	CPR
R30	ERDS2TJ682T	6.8K	1	AS
R30	ERJ3GEY0R00V	0	1	MAIN
R31	ERDS2FJ101	100	1	CPL
R31	ERDS2FJ101	100	1	CPR
R31	ERDS2FJ153	15K	1	AS
R31	ERJ3GEYJ470V	47	1	MAIN
R32	ERDS2FJ101	100	1	CPL
R32	ERDS2FJ101	100	1	CPR
R32	ERDS2FJ224	220K	1	AS
R32	ERJ3GEYJ470V	47	1	MAIN
R33	ERDS2FJ101	100	1	CPL
R33	ERDS2FJ101	100	1	CPR
R33	ERDS2FJ472	4.7K	1	AS
R33	ERJ3GEYJ470V	47	1	MAIN
R34	ERDS2FJ101	100	1	CPL
R34	ERDS2FJ101	100	1	CPR
R34	ERDS2FJ224	220K	1	AS
R34	ERJ3GEYJ470V	47	1	MAIN
R35	ERDS2FJ101	100	1	CPL
R35	ERDS2TJ682T	6.8K	1	AS
R35	ERJ3GEYJ470V	47	1	MAIN
R36	ERDS2FJ101	100	1	CPL
R36	ERDS2FJ224	220K	1	AS
R37	ERDS2FJ101	100	1	CPL
R37	ERDS2FJ332	3.3K	1	AS
R37	ERJ3GEYJ472V	4.7K	1	MAIN
R38	ERDS2FJ101	100	1	CPL
R38	ERDS2FJ224	220K	1	AS
R39	ERDS2FJ101	100	1	CPL
R39	ERDS2TJ682T	6.8K	1	AS
R39	ERJ3GEYJ470V	47	1	MAIN
R40	ERDS2FJ103	10K	1	CPL
R40	ERDS2FJ224	220K	1	AS
R40	ERJ3GEYJ470V	47	1	MAIN
R41	ERDS2FJ471	470	1	AS
R42	ERDS2TJ184T	180K	1	AS
R42	ERJ3GEYJ470V	47	1	MAIN
R43	ERDS2TJ682T	6.8K	1	AS
R43	ERJ3GEYJ472V	4.7K	1	MAIN
R44	ERDS2FJ153	15K	1	AS
R44	ERJ3GEYJ470V	47	1	MAIN
R45	ERDS2FJ224	220K	1	AS
R45	ERJ3GEYJ101V	100	1	MAIN
R46	ERDS2FJ472	4.7K	1	AS
R46	ERJ3GEYJ472V	4.7K	1	MAIN
R47	ERDS2FJ224	220K	1	AS
R47	ERJ3GEYJ472V	4.7K	1	MAIN

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R48	ERDS2TJ682T	6.8K	1	AS
R48	ERJ3GEYJ470V	47	1	MAIN
R49	ERDS2FJ224	220K	1	AS
R49	ERJ3GEYJ470V	47	1	MAIN
R50	ERDS2FJ332	3.3K	1	AS
R50	ERJ3GEYJ221V	220	1	MAIN
R51	ERDS2FJ224	220K	1	AS
R51	ERJ3GEYJ470V	47	1	MAIN
R52	ERDS2TJ682T	6.8K	1	AS
R52	ERJ3GEYJ470V	47	1	MAIN
R53	ERDS2FJ224	220K	1	AS
R53	ERJ3GEYJ470V	47	1	MAIN
R54	ERDS2FJ471	470	1	AS
R55	ERDS2TJ184T	180K	1	AS
R55	ERJ3GEY0R00V	0	1	MAIN
R56	ERDS2FJ393	39K	1	AS
R56	ERJ3GEYJ472V	4.7K	1	MAIN
R57	ERDS2FJ334	330K	1	AS
R57	ERJ3GEYJ470V	47	1	MAIN
R58	ERDS2FJ222	2200	1	AS
R58	ERJ3GEYJ470V	47	1	MAIN
R59	ERDS2FJ393	39K	1	AS
R59	ERJ3GEYJ472V	4.7K	1	MAIN
R60	ERDS2FJ104	100K	1	AS
R60	ERJ3GEYJ472V	4.7K	1	MAIN
R61	ERDS2TJ105T	1M	1	AS
R61	ERJ3GEYJ472V	4.7K	1	MAIN
R62	ERDS2FJ152	1.5K	1	AS
R62	ERJ3GEYJ472V	4.7K	1	MAIN
R63	ERJ3GEYJ470V	47	1	MAIN
R64	ERJ3GEYJ472V	4.7K	1	MAIN
R65	ERDS2FJ393	39K	1	AS
R65	ERJ3GEYJ472V	4.7K	1	MAIN
R66	ERDS2FJ334	330K	1	AS
R66	ERJ3GEYJ472V	4.7K	1	MAIN
R67	ERDS2FJ222	2200	1	AS
R67	ERJ3GEYJ472V	4.7K	1	MAIN
R68	ERDS2FJ393	39K	1	AS
R69	ERDS2FJ104	100K	1	AS
R69	ERJ3GEYJ330V	33	1	D0GB330JA002 MAIN
R70	ERDS2TJ105T	1M	1	AS
R70	ERJ3GEYJ470V	47	1	MAIN
R71	ERDS2FJ222	2200	1	AS
R71,72	ERJ3GEYJ470V	47	2	MAIN
R73	ERJ3GEYJ331V	330	1	MAIN
R74	ERJ3GEYJ470V	47	1	MAIN
R75	ERJ3GEYJ680	68	1	ERJ3GEYJ680V MAIN
R76	ERF5TJ100	10	1	⚠ AS
R76	ERJ3GEYJ472V	4.7K	1	MAIN
R77	ERF5TJ100	10	1	⚠ AS
R77	ERJ3GEYJ153V	15K	1	MAIN
R78	ERF2EXKR10V	0.1	1	⚠ AS
R78	ERJ3GEYJ563V	56K	1	MAIN

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R79	ERF2EXKR10V	0.1	1	⚠ AS
R80	ERDS2FJ223	22K	1	AS
R80	ERJ3GEYJ153V	15K	1	MAIN
R81	ERDS2FJ153	15K	1	AS
R82	ERDS2FJ333	33K	1	AS
R83	ERDS2FJ223	22K	1	AS
R84	ERDS2FJ153	15K	1	AS
R85	ERDS2FJ333	33K	1	AS
R86	ERDS2FJ103	10K	1	AS
R86	ERJ3GEY0R00V	0	1	MAIN
R87	ERDS2FJ104	100K	1	AS
R87	ERJ3GEY0R00V	0	1	MAIN
R88	ERD2FCJ6R8	6.8 FUSE TYPE	1	⚠ AS
R88	ERJ3GEYJ223V	22K	1	D0GB223JA002 MAIN
R89	ERDS2FJ104	100K	1	AS
R90	ERDS2FJ103	10K	1	AS
R91	ERDS2FJ472	4.7K	1	AS
R91	ERJ3GEYJ223V	22K	1	D0GB223JA002 MAIN
R92	ERDS2FJ103	10K	1	AS
R92	ERJ3GEY0R00V	0	1	MAIN
R93	ERDS2FJ472	4.7K	1	AS
R94	ERDS2FJ473	47K	1	AS
R95	ERDS2FJ332	3.3K	1	AS
R96	ERDS2FJ103	10K	1	AS
R96	ERJ3GEYJ563V	56K	1	MAIN
R101	ERD2FCVG221T	220 FUSE TYPE	1	⚠ ASUB
R101	ERJ3GEYJ222V	2.2K	1	D0GB222JA002 MAIN
R102,03	ERDS2FJ152	1.5K	2	ASUB
R104	ERDS2FJ472	4.7K	1	ASUB
R104	ERJ3GEYJ472V	4.7K	1	MAIN
R105	ERD2FCVG221T	220 FUSE TYPE	1	⚠ ; ASUB
R105	ERDS2TJ682T	6.8K	1	AS
R105	ERJ3GEYJ472V	4.7K	1	MAIN
R106	ERD2FCVG221T	220 FUSE TYPE	1	⚠ ASUB
R106	ERDS2TJ682T	6.8K	1	AS
R106	ERJ3GEYJ104V	100K	1	D0GB104JA002 MAIN
R107	ERD2FCVG471T	470 FUSE TYPE	1	⚠ ASUB
R107	ERJ3GEYJ473V	47K	1	D0GB473JA002 MAIN
R108	ERD2FCVG471T	470 FUSE TYPE	1	⚠ ASUB
R108	ERJ3GEYJ470V	47	1	MAIN
R109	ERDS2FJ103	10K	1	ASUB
R109	ERJ3GEYJ105V	1M	1	MAIN
R110	ERDS2FJ103	10K	1	ASUB
R110,11	ERJ3GEYJ101V	100	2	MAIN
R112	ERJ3GEYJ472V	4.7K	1	MAIN
R113	ERD2FCVG221T	220 FUSE TYPE	1	⚠ ASUB
R113	ERJ3GEYJ222V	2.2K	1	D0GB222JA002 MAIN
R114,15	ERDS2FJ152	1.5K	2	ASUB
R116	ERDS2FJ472	4.7K	1	ASUB
R116	ERJ3GEYJ102V	1K	1	MAIN
R117	ERD2FCVG221T	220 FUSE TYPE	1	⚠ ASUB
R117	ERJ3GEYJ470V	47	1	MAIN

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R118	ERD2FCVG221T	220 FUSE TYPE	1	⚠ ASUB
R118	ERJ3GEYJ470V	47	1	MAIN
R119	ERD2FCVG471T	470 FUSE TYPE	1	⚠ ASUB
R119	ERJ3GEYJ470V	47	1	MAIN
R120	ERD2FCVG471T	470 FUSE TYPE	1	⚠ ASUB
R120	ERJ3GEYJ102V	1K	1	MAIN
R121,22	ERDS2FJ103	10K	2	ASUB
R123	ERJ3GEY0R00V	0	1	MAIN
R125	ERJ3GEY0R00V	0	1	MAIN
R126	ERJ3GEYJ105V	1M	1	MAIN
R128	ERJ3GEYJ470V	47	1	MAIN
R130,31	ERJ3GEYJ472V	4.7K	2	MAIN
R134,35	ERJ3GEYJ472V	4.7K	2	MAIN
R136	ERJ3GEYJ221V	220	1	MAIN
R138-40	ERJ3GEYJ472V	4.7K	3	MAIN
R141	ERJ3GEYJ105V	1M	1	MAIN
R142,43	ERJ3GEYJ472V	4.7K	2	MAIN
R144,45	ERJ3GEYJ103V	10K	2	D0GB103JA002 MAIN
R150	ERJ3GEYJ471V	470	1	MAIN
R153	ERJ3GEYJ471V	470	1	MAIN
R154	ERJ3GEYJ151V	150	1	MAIN
R156	ERJ3GEYJ151V	150	1	MAIN
R158	ERJ3GEYJ221V	220	1	MAIN
R160	ERJ3GEYJ472V	4.7K	1	MAIN
R162	ERJ3GEYJ224V	220K	1	MAIN
R163	ERJ3GEYJ101V	100	1	MAIN
R164,65	ERJ3GEYJ102V	1K	2	MAIN
R166	ERJ3GEYJ471V	470	1	MAIN
R168	ERJ3GEYJ101V	100	1	MAIN
R169	ERJ3GEYJ471V	470	1	MAIN
R170	ERG1SJ330P	33	1	⚠ ERG1SJ330 MAIN
R171	ERJ3GEYJ472V	4.7K	1	MAIN
R172	ERJ3GEYJ221V	220	1	MAIN
R173	ERJ3GEYJ471V	470	1	MAIN
R178	ERJ3GEYJ101V	100	1	MAIN
R182	ERJ3GEYJ471V	470	1	MAIN
R184	ERJ3GEYJ151V	150	1	MAIN
R185-87	ERJ3GEYJ472V	4.7K	3	MAIN
R188	ERJ3GEYJ101V	100	1	MAIN
R189	ERJ3GEYJ151V	150	1	MAIN
R190	ERJ3GEYJ221V	220	1	MAIN
R195	ERJ3GEYJ472V	4.7K	1	MAIN
R196,97	ERJ3GEY0R00V	0	2	MAIN
R198	ERJ3GEYJ563V	56K	1	MAIN
R199	ERJ3GEYJ102V	1K	1	MAIN
R201,02	ERJ3GEYJ470V	47	2	MAIN
R204	ERJ3GEYJ103V	10K	1	D0GB103JA002 MAIN
R205	ERJ3GEYJ471V	470	1	MAIN
R206,07	ERJ3GEY0R00V	0	2	MAIN
R208	ERJ3GEYJ472V	4.7K	1	MAIN
R209	ERJ3GEYJ102V	1K	1	MAIN
R210	ERJ3GEY0R00V	0	1	MAIN
R211	ERJ3GEYJ101V	100	1	MAIN

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R212,13	ERJ3GEYJ472V	4.7K	2	MAIN
R214	ERJ3GEYJ152V	1.5K	1	MAIN
R215,16	ERJ3GEYJ472V	4.7K	2	MAIN
R217	ERJ3GEYJ474V	470K	1	MAIN
R218	ERJ3GEYJ472V	4.7K	1	MAIN
R219	ERJ3GEY0R00V	0	1	MAIN
R220	ERJ3GEYJ153V	15K	1	MAIN
R221,22	ERJ3GEYJ103V	10K	2	D0GB103JA002 MAIN
R223,24	ERJ3GEYJ333V	33K	2	D0GB333JA002 MAIN
R225,26	ERJ3GEY0R00V	0	2	MAIN
R227	ERJ3GEYJ474V	470K	1	MAIN
R228,29	ERJ3GEYJ330V	33	2	D0GB330JA002 MAIN
R230	ERJ3GEYJ471V	470	1	MAIN
R231	ERJ3GEY0R00V	0	1	MAIN
R232	ERJ3GEYJ472V	4.7K	1	MAIN
R233	ERJ3GEYJ152V	1.5K	1	MAIN
R234,35	ERJ3GEYJ472V	4.7K	2	MAIN
R236,37	ERJ3GEYJ682V	6.8K	2	D0GB682JA002 MAIN
R238	ERJ3GEYJ221V	220	1	MAIN
R239,40	ERJ3GEYJ472V	4.7K	2	MAIN
R241	ERJ3GEYJ471V	470	1	MAIN
R242	ERJ3GEYJ101V	100	1	MAIN
R244	ERJ3GEYJ472V	4.7K	1	MAIN
R247	ERX1SJR33	1W 0.33	1	MAIN
R248	ERJ3GEYJ472V	4.7K	1	MAIN
R249,50	ERJ3GEYJ104V	100K	2	D0GB104JA002 MAIN
R253	ERJ3GEYJ473V	47K	1	D0GB473JA002 MAIN
R254	ERJ3GEYJ101V	100	1	MAIN
R255	ERJ3GEYJ682V	6.8K	1	D0GB682JA002 MAIN
R256,57	ERJ3GEYJ224V	220K	2	D0GB224JA002 MAIN
R258	ERJ3GEYJ682V	6.8K	1	D0GB682JA002 MAIN
R259,60	ERJ3GEYJ224V	220K	2	D0GB224JA002 MAIN
R261	ERJ3GEYJ471V	470	1	MAIN
R262,63	ERJ3GEYJ104V	100K	2	D0GB104JA002 MAIN
R264	ERJ3GEYJ101V	100	1	MAIN
R266	ERJ3GEYJ152V	1.5K	1	MAIN
R275	ERJ3GEYJ331V	330	1	MAIN
R278	ERJ3GEY0R00V	0	1	MAIN
R280,81	ERJ3GEYJ153V	15K	2	MAIN
R282,83	ERJ3GEYJ473V	47K	2	D0GB473JA002 MAIN
R284	ERJ3GEYJ680	68	1	ERJ3GEYJ680V MAIN
R285	ERX1SJR33	1W 0.33	1	MAIN
R286	ERJ3GEYJ331V	330	1	MAIN
R287	ERJ3GEYJ102V	1K	1	MAIN
R288	ERJ3GEYJ101V	100	1	MAIN
R289,90	ERJ3GEYJ473V	47K	2	D0GB473JA002 MAIN
R293	ERJ3GEY0R00V	0	1	MAIN
R295	ERJ3GEY0R00V	0	1	MAIN
R299	ERJ3GEYJ221V	220	1	MAIN
R301-04	ERJ3GEYJ470V	47	4	MAIN
R306,07	ERJ3GEYJ470V	47	2	MAIN
R308,09	ERJ3GEYJ103V	10K	2	D0GB103JA002 MAIN
R310,11	ERJ3GEYJ153V	15K	2	MAIN
R314,15	ERJ3GEYJ101V	100	2	MAIN

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R320	ERJ3GEYJ101V	100	1	MAIN
R321	ERJ3GEYJ471V	470	1	MAIN
R322	ERJ3GEYJ101V	100	1	MAIN
R323-25	ERJ3GEY0R00V	0	3	MAIN
R327	ERJ3GEY0R00V	0	1	MAIN
R5005-12	ERJ3GEYJ220V	22	8	INV
R5013,14	ERJ3GEYJ472V	4.7K	2	INV
R5015	ERJ3GEY0R00V	0	1	INV
SW1-4	-	SWITCH	4	MKB1*1
SW5-16	-	SWITCH	12	MKB1*1
SW17-28	-	SWITCH	12	MKB1*1
SW29-40	-	SWITCH	12	MKB1*1
SW41-52	-	SWITCH	12	MKB1 MKB2*1
SW53-64	-	SWITCH	12	MKB2*1
SW65-76	-	SWITCH	12	MKB2*1
SW77-88	-	SWITCH	12	MKB2*1
S1	QSPG1010AA	SW POWER	1	⚠
S1-3	QSTGT001AA	LEVER SWITCH	3	K0D112A00015 PKB
SP1-2	QASG14P01A	14CM SP	2	
SP3-4	QASG65PH03A	6.5CM SP	2	
SW1	EVQ21507K	PUSH SWITCH	1	CPL
SW1	EVQ21507K	PUSH SWITCH	1	CPR
SW1	QSRGT005AA	VOLTAGE SELECTOR	1	⚠ K0AFDB000002 JACK
SW1	QSRGT005AA	VOLTAGE SELECTOR	1	⚠ K0AFDB000002 JACK GM GT
SW2-W4	EVQ21507K	PUSH SWITCH	3	CPL
SW4	EVQ21507K	PUSH SWITCH	1	CPR
SW5	EVQ21507K	PUSH SWITCH	1	CPL
SW5	EVQ21507K	PUSH SWITCH	1	CPR
SW6-W9	EVQ21507K	PUSH SWITCH	4	CPL
SW9	EVQ21507K	PUSH SWITCH	1	CPR
SW10-12	EVQ21507K	PUSH SWITCH	3	CPL
SW12	EVQ21507K	PUSH SWITCH	1	CPR
SW13	EVQ21507K	PUSH SWITCH	1	CPL
SW13	EVQ21507K	PUSH SWITCH	1	CPR
SW14-18	EVQ21507K	PUSH SWITCH	5	CPL
SW18	EVQ21507K	PUSH SWITCH	1	CPR
SW19	EVQ21507K	PUSH SWITCH	1	CPL
SW19	EVQ21507K	PUSH SWITCH	1	CPR
SW20-22	EVQ21507K	PUSH SWITCH	3	CPL
SW22	EVQ21507K	PUSH SWITCH	1	CPR
SW23	EVQ21507K	PUSH SWITCH	1	CPL
SW23	EVQ21507K	PUSH SWITCH	1	CPR
SW24,25	EVQ21507K	PUSH SWITCH	2	CPL
SW25	EVQ21507K	PUSH SWITCH	1	CPR
SW26	EVQ21507K	PUSH SWITCH	1	CPL
SW26	EVQ21507K	PUSH SWITCH	1	CPR
SW27	EVQ21507K	PUSH SWITCH	1	CPL
SW27	EVQ21507K	PUSH SWITCH	1	CPR
SW28	EVQ21507K	PUSH SWITCH	1	CPL

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
SW28	EVQ21507K	PUSH SWITCH	1	CPR
SW29	EVQ21507K	PUSH SWITCH	1	CPL
SW29	EVQ21507K	PUSH SWITCH	1	CPR
SW30	EVQ21507K	PUSH SWITCH	1	CPL
SW30	EVQ21507K	PUSH SWITCH	1	CPR
SW31,32	EVQ21507K	PUSH SWITCH	2	CPL
SW32	EVQ21507K	PUSH SWITCH	1	CPR
SW33	EVQ21507K	PUSH SWITCH	1	CPL
SW33-40	EVQ21507K	PUSH SWITCH	7	CPR
SW41	EVQ21507K	PUSH SWITCH	1	CPL
SW41	EVQ21507K	PUSH SWITCH	1	CPR
SW42	EVQ21507K	PUSH SWITCH	1	CPL
SW42	EVQ21507K	PUSH SWITCH	1	CPR
SW43	EVQ21507K	PUSH SWITCH	1	CPL
SW43,44	EVQ21507K	PUSH SWITCH	2	CPR
SW47	EVQ21507K	PUSH SWITCH	1	CPL
SW49-64	EVQ21507K	PUSH SWITCH	15	CPR
SW80	QSRGT002AA	ENCODER SWITCH	1	K9AA015B0034 CPL
SW81-87	EVQ21507K	PUSH SWITCH	7	CPR
SW150,51	EVQ21507K	PUSH SWITCH	2	CPCL
SW151	EVQ21507K	PUSH SWITCH	1	CPCR
SW152	EVQ21507K	PUSH SWITCH	1	CPCL
SW152	EVQ21507K	PUSH SWITCH	1	CPCR
SW153,54	EVQ21507K	PUSH SWITCH	2	CPCL
SW155-57	EVQ21507K	PUSH SWITCH	3	CPCR
SW158,59	EVQ21507K	PUSH SWITCH	2	CPCL
SW159	EVQ21507K	PUSH SWITCH	1	CPCR
SW160	EVQ21507K	PUSH SWITCH	1	CPCL
SW160	EVQ21507K	PUSH SWITCH	1	CPCR
SW161	EVQ21507K	PUSH SWITCH	1	CPCL
SW163,64	EVQ21507K	PUSH SWITCH	2	CPCR
SW166	EVQ21507K	PUSH SWITCH	1	CPCL
SW166	EVQ21507K	PUSH SWITCH	1	CPCR
SW167	EVQ21507K	PUSH SWITCH	1	CPCL
SW167	EVQ21507K	PUSH SWITCH	1	CPCR
SW168	EVQ21507K	PUSH SWITCH	1	CPCL
SW168	EVQ21507K	PUSH SWITCH	1	CPCR
SW169	EVQ21507K	PUSH SWITCH	1	CPCL
SW169	EVQ21507K	PUSH SWITCH	1	CPCR
SW170	EVQ21507K	PUSH SWITCH	1	CPCL
SW170	EVQ21507K	PUSH SWITCH	1	CPCR
SW171	EVQ21507K	PUSH SWITCH	1	CPCL
SW171	EVQ21507K	PUSH SWITCH	1	CPCR
SW172	EVQ21507K	PUSH SWITCH	1	CPCL
SW172	EVQ21507K	PUSH SWITCH	1	CPCR
SW173	EVQ21507K	PUSH SWITCH	1	CPCL
SW173	EVQ21507K	PUSH SWITCH	1	CPCR
SW174	EVQ21507K	PUSH SWITCH	1	CPCL
SW174	EVQ21507K	PUSH SWITCH	1	CPCR
SW175	EVQ21507K	PUSH SWITCH	1	CPCL
SW175	EVQ21507K	PUSH SWITCH	1	CPCR
SW176	EVQ21507K	PUSH SWITCH	1	CPCL
SW176	EVQ21507K	PUSH SWITCH	1	CPCR
SW177	EVQ21507K	PUSH SWITCH	1	CPCL

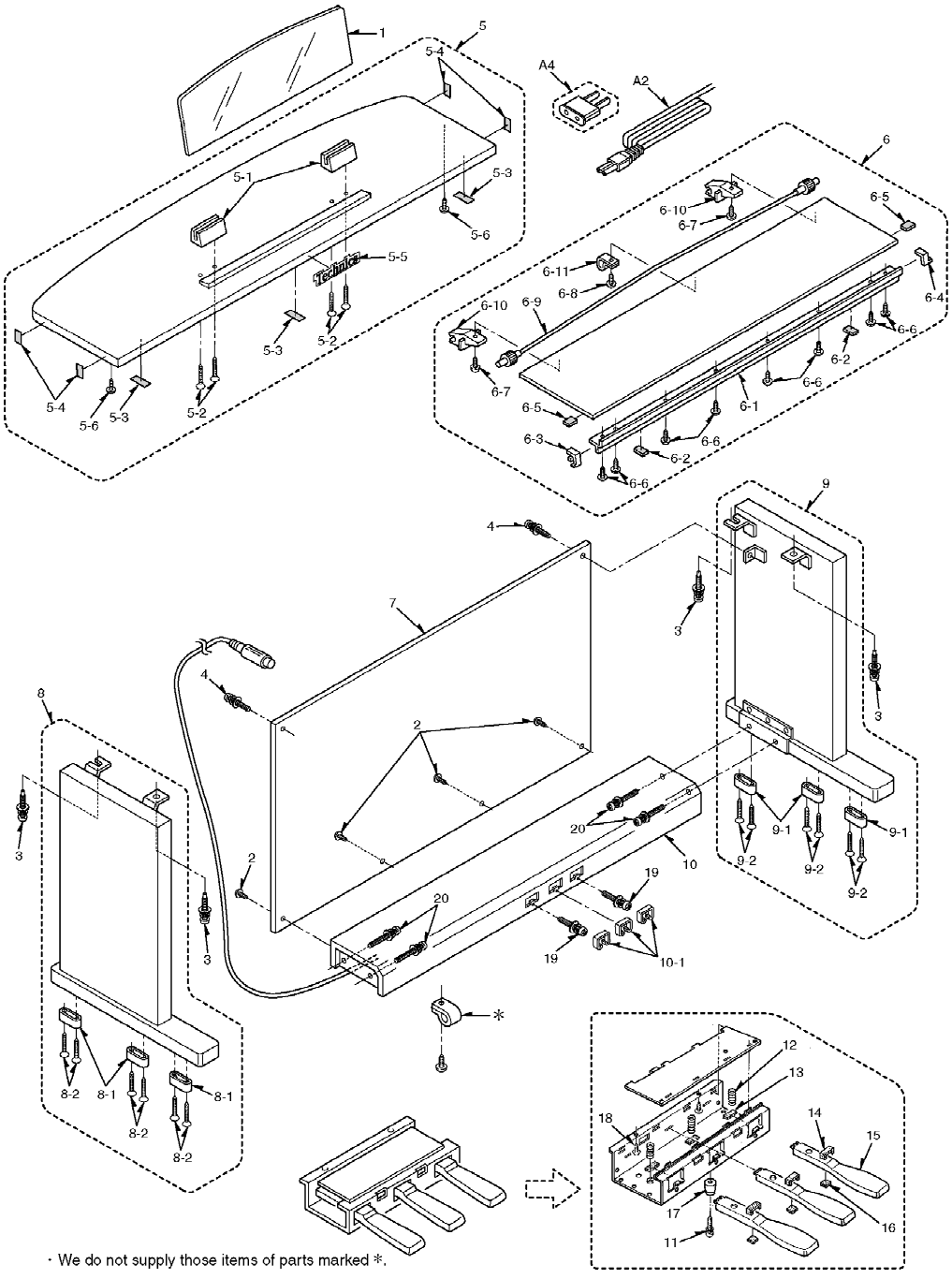
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
SW177	EVQ21507K	PUSH SWITCH	1	CPCR
SW178	EVQ21507K	PUSH SWITCH	1	CPCL
SW178	EVQ21507K	PUSH SWITCH	1	CPCR
SW179	EVQ21507K	PUSH SWITCH	1	CPCL
SW179	EVQ21507K	PUSH SWITCH	1	CPCR
SW180	EVQ21507K	PUSH SWITCH	1	CPCL
SW180	EVQ21507K	PUSH SWITCH	1	CPCR
SW181	EVQ21507K	PUSH SWITCH	1	CPCL
SW181	EVQ21507K	PUSH SWITCH	1	CPCR
T5001	QTDG005A	TRANSFORMER	1	G4F1A0000003 INV
VR1	QRNG0681C102	1K	1	D3CA61020004 AS
VR1	QRVG09A02B54	VR	1	D2BDB54B0002 HP
VR1	QRVG25P01B53	5K B APC/SEQUENCER	1	D2B5C53B0001 CPL
VR2	QRVG25N01B53	5K B MAIN	1	D2B5A53B0001 CPL
W1	QEXGVH06110F	CONNECTOR WITH WIRE	1	
W2	QEXGVH04115A	CONNECTOR WITH WIRE	1	
W3	QEXGSS06075A	CONNECTOR WITH WIRE	1	
W4	QEXGVH03140B	CONNECTOR WITH WIRE	1	
W5	QJLG021AA	PEDAL CORD	1	
W6	QEXGSS16110A	CONNECTOR WITH WIRE	1	
W7	QEXGSS05100C	CONNECTOR WITH WIRE	1	
W8	QEXGSS15025A	CONNECTOR WITH WIRE	1	
W9	QEXGZA13080A	CONNECTOR WITH WIRE	1	
W10	QEXGZA34027A	CONNECTOR WITH WIRE	1	
W11	QEXGSS05100A	CONNECTOR WITH WIRE	1	
W12	QEXGZA12020A	CONNECTOR WITH WIRE	1	
W13	QEUGMFW09DDZ	CONNECTOR WITH WIRE	1	
W14	QEUGMFW10DZ	CONNECTOR WITH WIRE	1	
W15	QEXGSS08025A	CONNECTOR WITH WIRE	1	
W16	QEXGSS14025A	CONNECTOR WITH WIRE	1	
W17	QEXGSS14040A	CONNECTOR WITH WIRE	1	
X1	EFOEC4004T3	4MHZ CERAMIC OSCILATOR	1	CPL
X1	EFOEC4004T3	4MHZ CERAMIC OSCILATOR	1	CPR
X1	H0J169300002	OSCILATOR	1	MAIN
X2	VSX0917	OSCILATOR	1	H0J160500026 MAIN
X3	H0J250500016	OSCILATOR	1	MAIN
X6	H0J240500016	24MHZ OSCILATOR	1	MAIN
Z1	EXBS8V223J	22K × 4	1	MAIN
Z2	EXBV8V223JV	22K × 4	1	MAIN
Z3	EXBV8V470JV	47 × 4	1	MAIN
Z4,Z5	EXBS8V470J	47 × 4	2	MAIN
Z6-Z9	EXBV8V472JV	4.7K × 4	4	MAIN
Z10	EXBS8V470J	47 × 4	1	MAIN
Z11-13	EXBV8V101JV	100 × 4	3	MAIN
Z14	EXBV8V470JV	47 × 4	1	MAIN
Z15	EXBV8V472JV	4.7K × 4	1	MAIN
Z16	EXBV8V470JV	47 × 4	1	MAIN
Z17	EXBV8V472JV	4.7K × 4	1	MAIN
Z18	EXBV8V470JV	47 × 4	1	MAIN

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Z19,20	EXBV8V472JV	4.7K × 4	2	MAIN
Z21	EXBV8V470JV	47 × 4	1	MAIN
Z22,23	EXBV8V472JV	4.7K × 4	2	MAIN
Z24	EXBV8V101JV	100 × 4	1	MAIN
Z25,26	EXBV8V472JV	4.7K × 4	2	MAIN
Z27-32	EXBV8V470JV	47 × 4	6	MAIN
Z33	EXBS8V101J	100 × 4	1	MAIN
Z34-37	EXBV8V472JV	4.7K × 4	4	MAIN
Z39,40	EXBV8V472JV	4.7K × 4	2	MAIN
Z41	EXBV8V101JV	100 × 4	1	MAIN
Z42-46	EXBV8V472JV	4.7K × 4	5	MAIN
Z66	EXBS8V470J	47 × 4	1	MAIN
Z67	EXBV8V472JV	4.7K × 4	1	MAIN
Z68	EXBV8V470JV	47 × 4	1	MAIN
Z69	EXBS8V470J	47 × 4	1	MAIN
Z71,72	EXBS8V470J	47 × 4	2	MAIN
Z73	EXBS8V102J	1K × 4	1	MAIN
Z74	EXBV8V103J	10K × 4	1	D0GZ103J0001 MAIN
Z75	EXBS8V103J	10K × 4	1	MAIN
Z79,80	EXBV8V472JV	4.7K × 4	2	MAIN
Z81,82	EXBV8V101JV	100 × 4	2	MAIN
Z88	EXBS8V470J	47 × 4	1	MAIN
Z89	EXBV8V101JV	100 × 4	1	MAIN
Z92	EXBV8V101JV	100 × 4	1	MAIN
Z94	EXBV8V470JV	47 × 4	1	MAIN
Z97	EXBS8V472J	4.7K × 4	1	MAIN

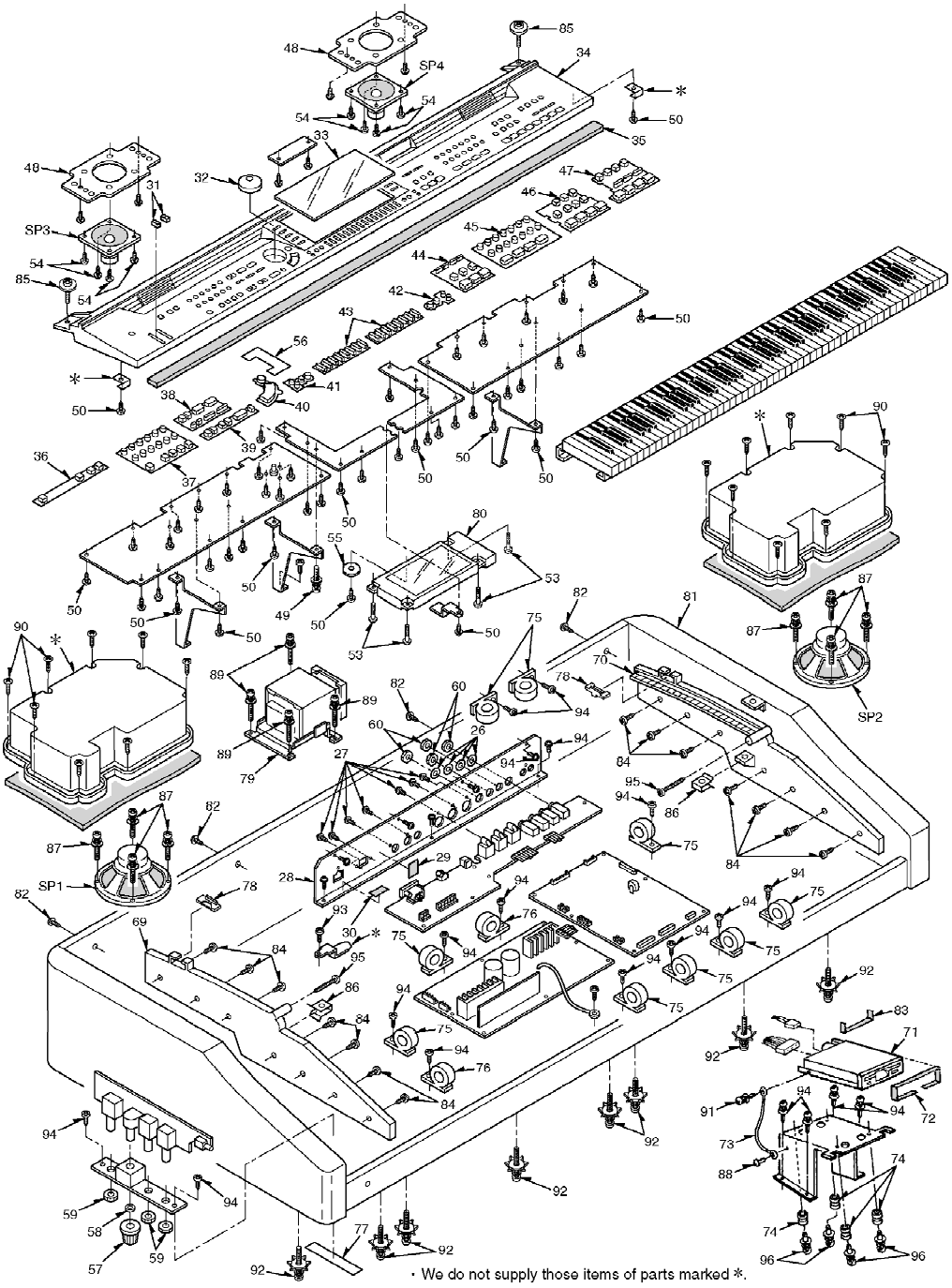
Notes:

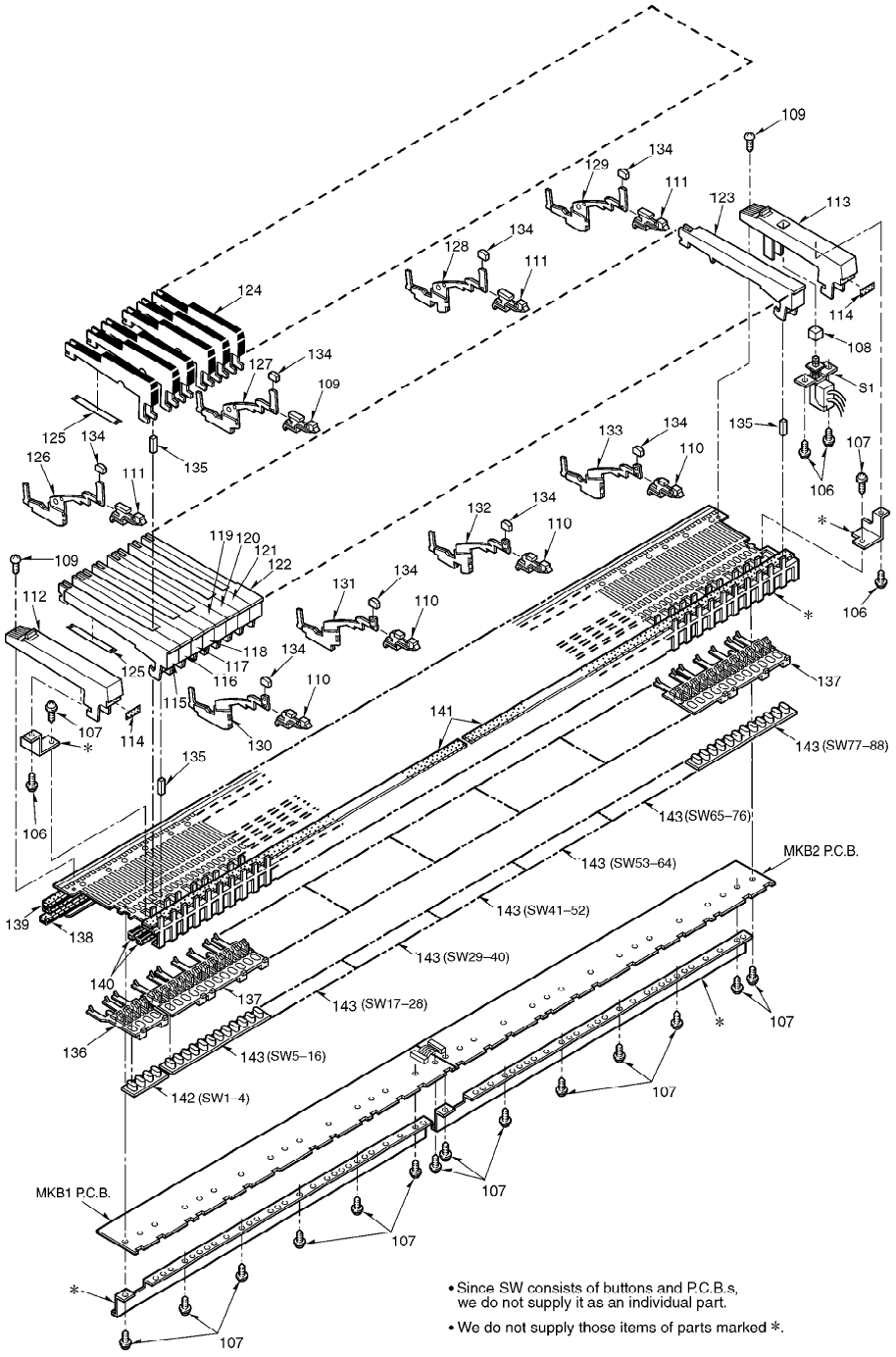
***1: Since SW consists of buttons and P.C.B.s, we do not supply it as an individual part (refer to "CABINET PARTS LOCATION " on the next page).**

17. CABINET PARTS LOCATION

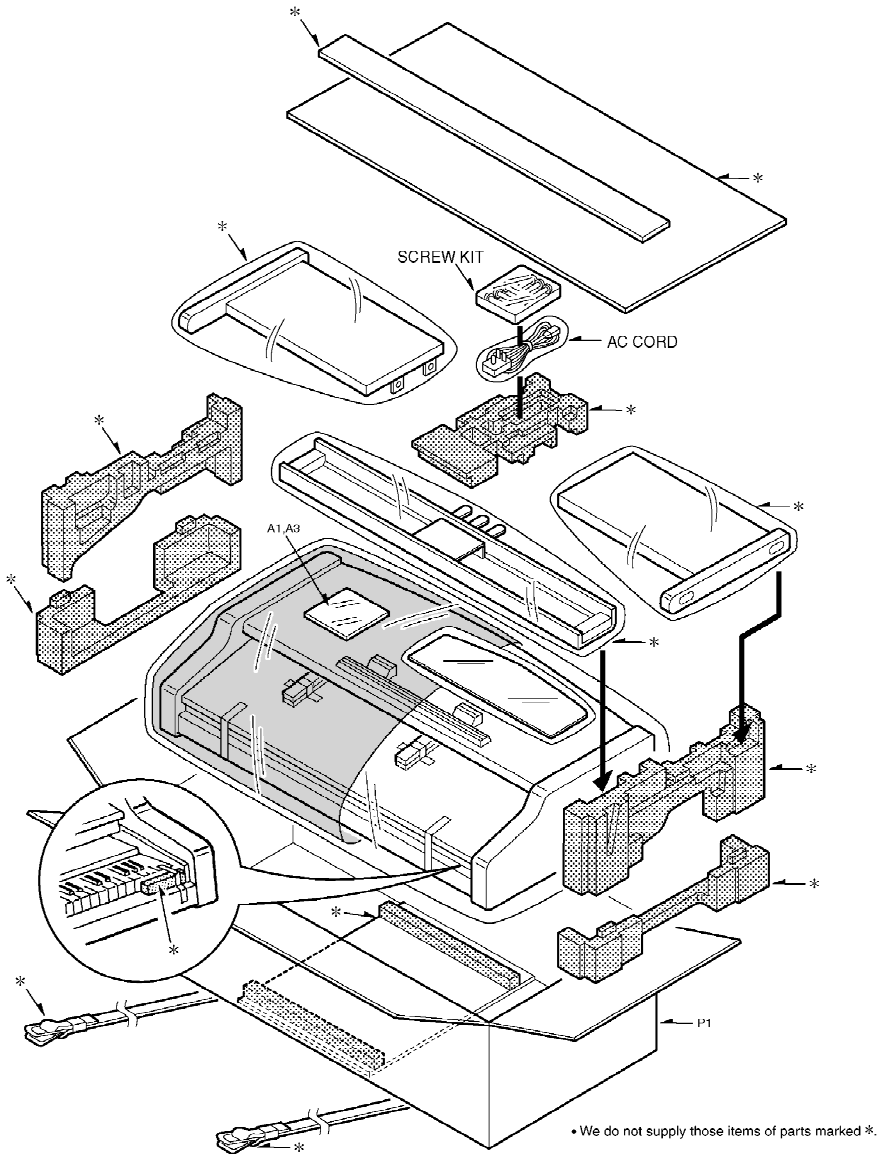


· We do not supply those items of parts marked *.


SP4
SP3
SP1
SP2
* We do not supply those items of parts marked *.


MKB1 P.C.B.
MKB2 P.C.B.
143 (SW77–88)
143 (SW65–76)
143 (SW53–64)
143 (SW41–52)
143 (SW29–40)
143 (SW17–28)
143 (SW5–16)
142 (SW1–4)
• Since SW consists of buttons and P.C.B.s, we do not supply it as an individual part.
• We do not supply those items of parts marked *.

18. PACKAGING

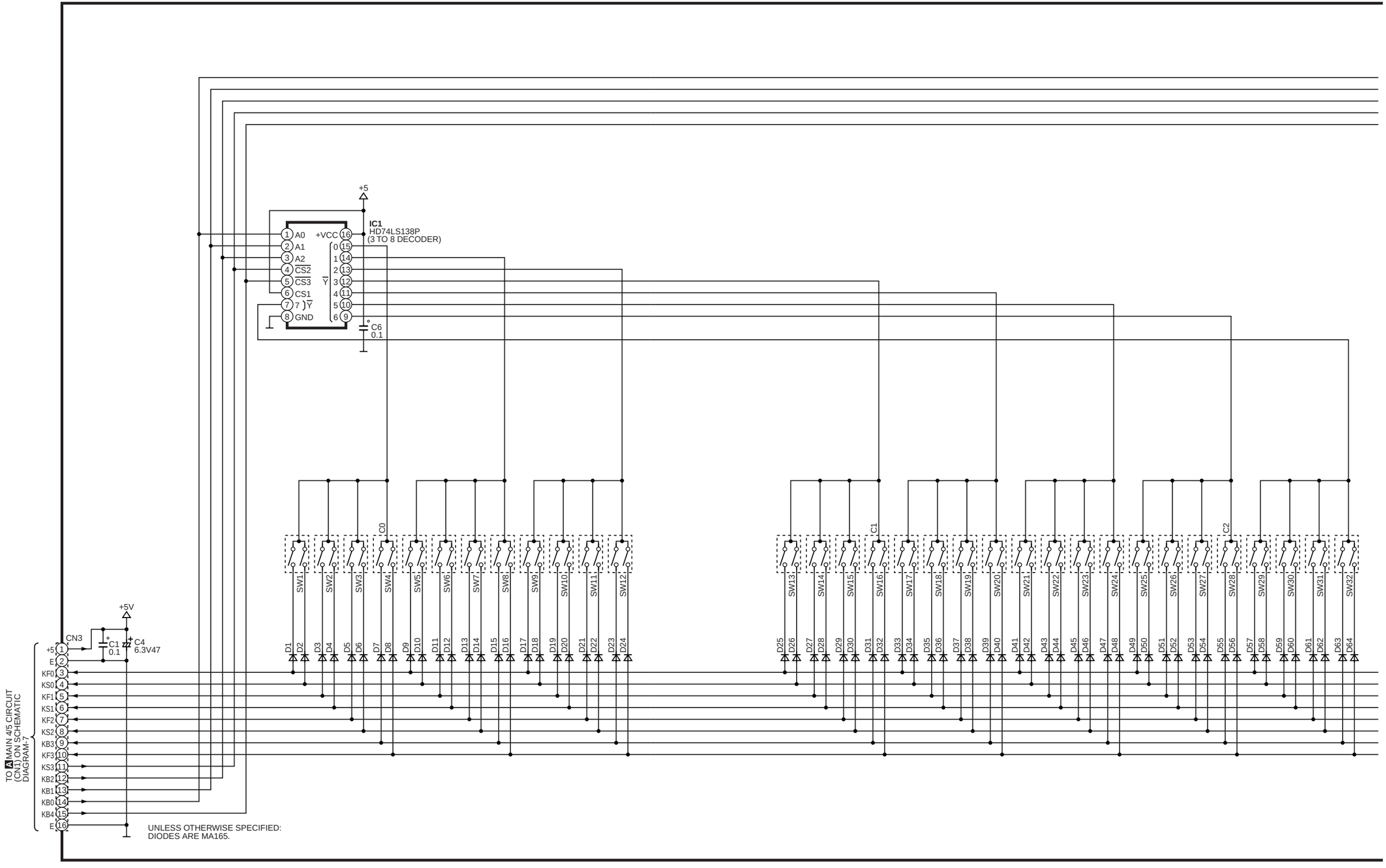


19. SCHEMATIC DIAGRAM FOR PRINTING WITH A4 SIZE

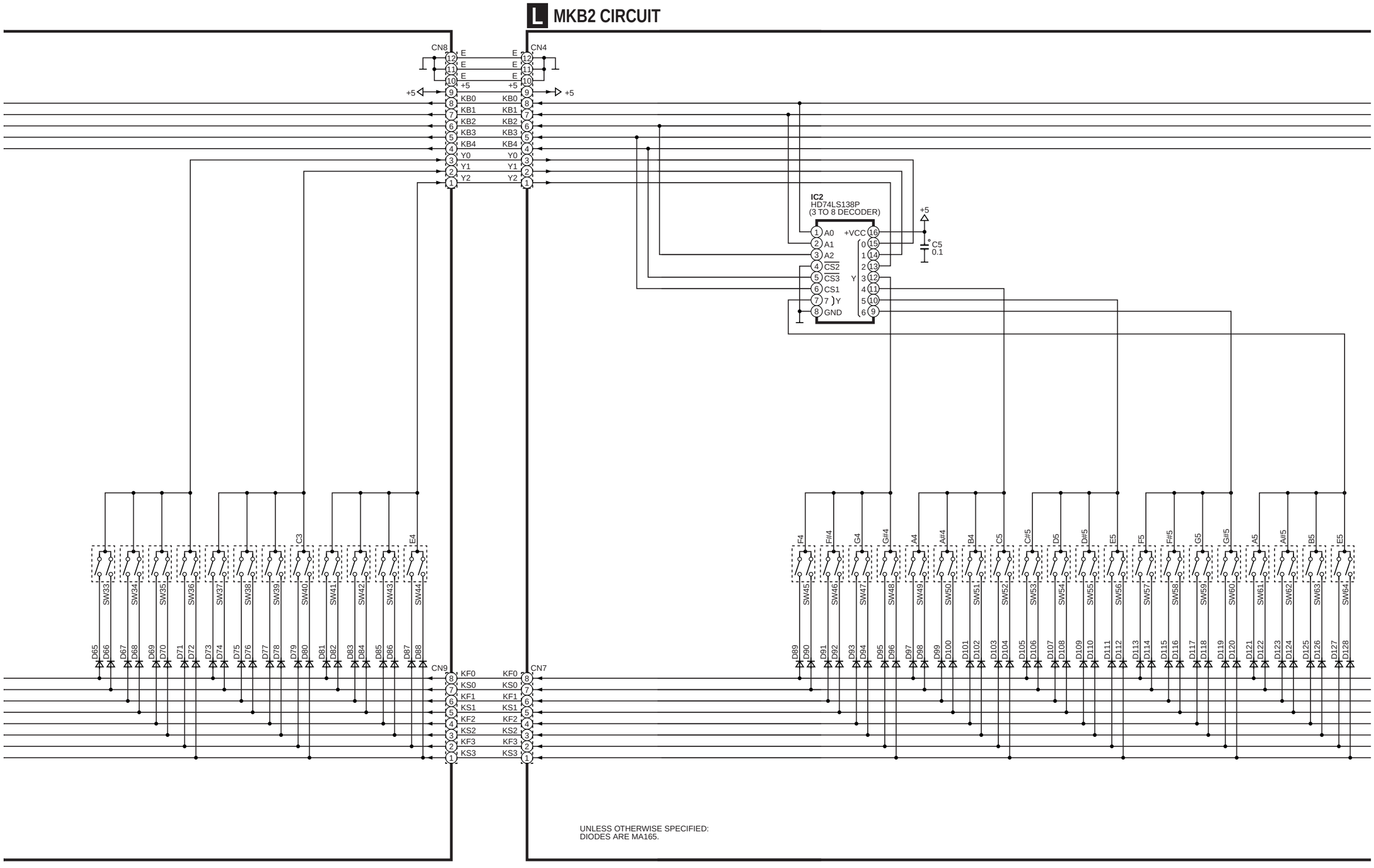
Printed in Japan / S020600000 HM/AM

SCHEMATIC DIAGRAM-16

K MKB1 CIRCUIT

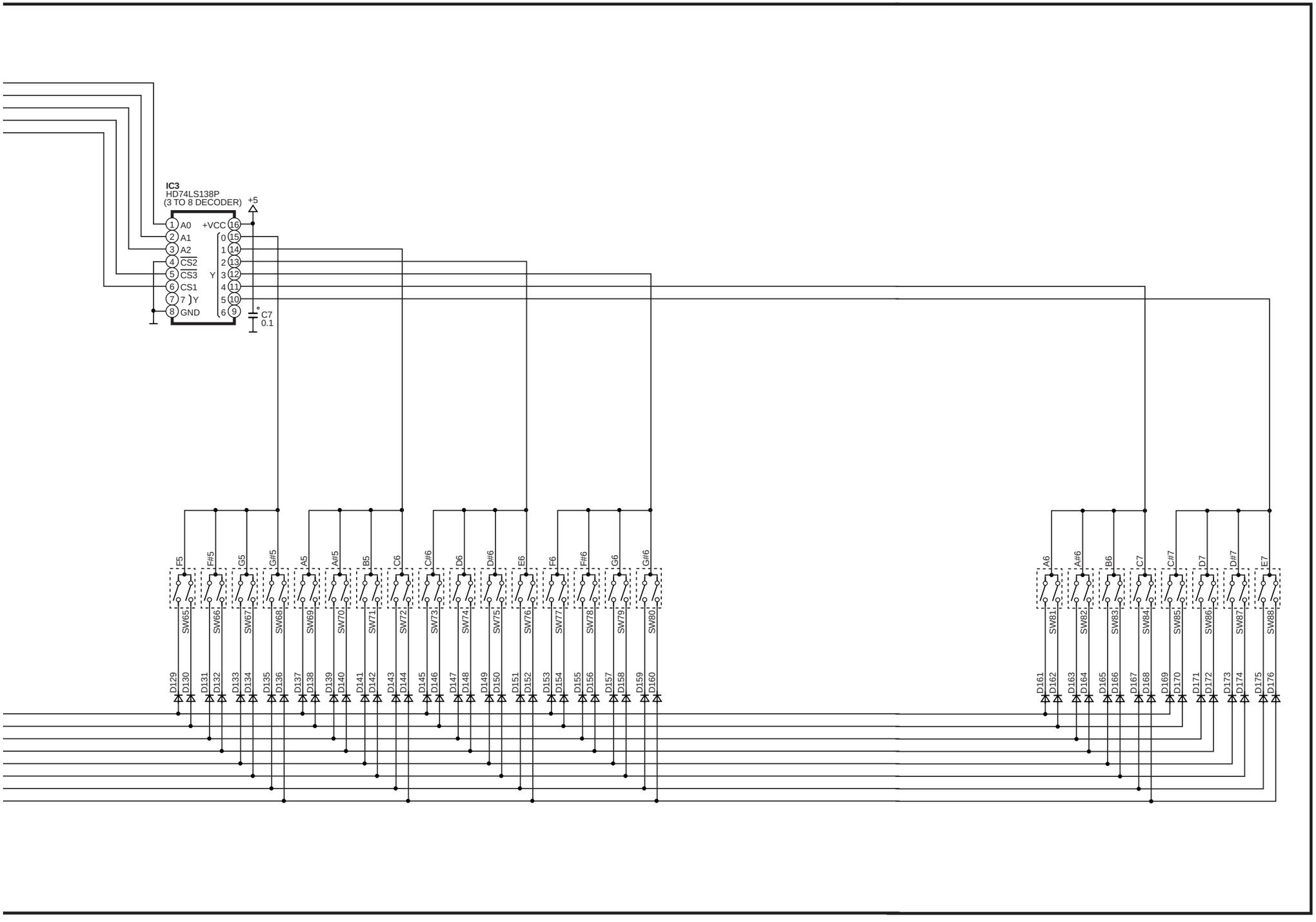


SCHEMATIC DIAGRAM-17

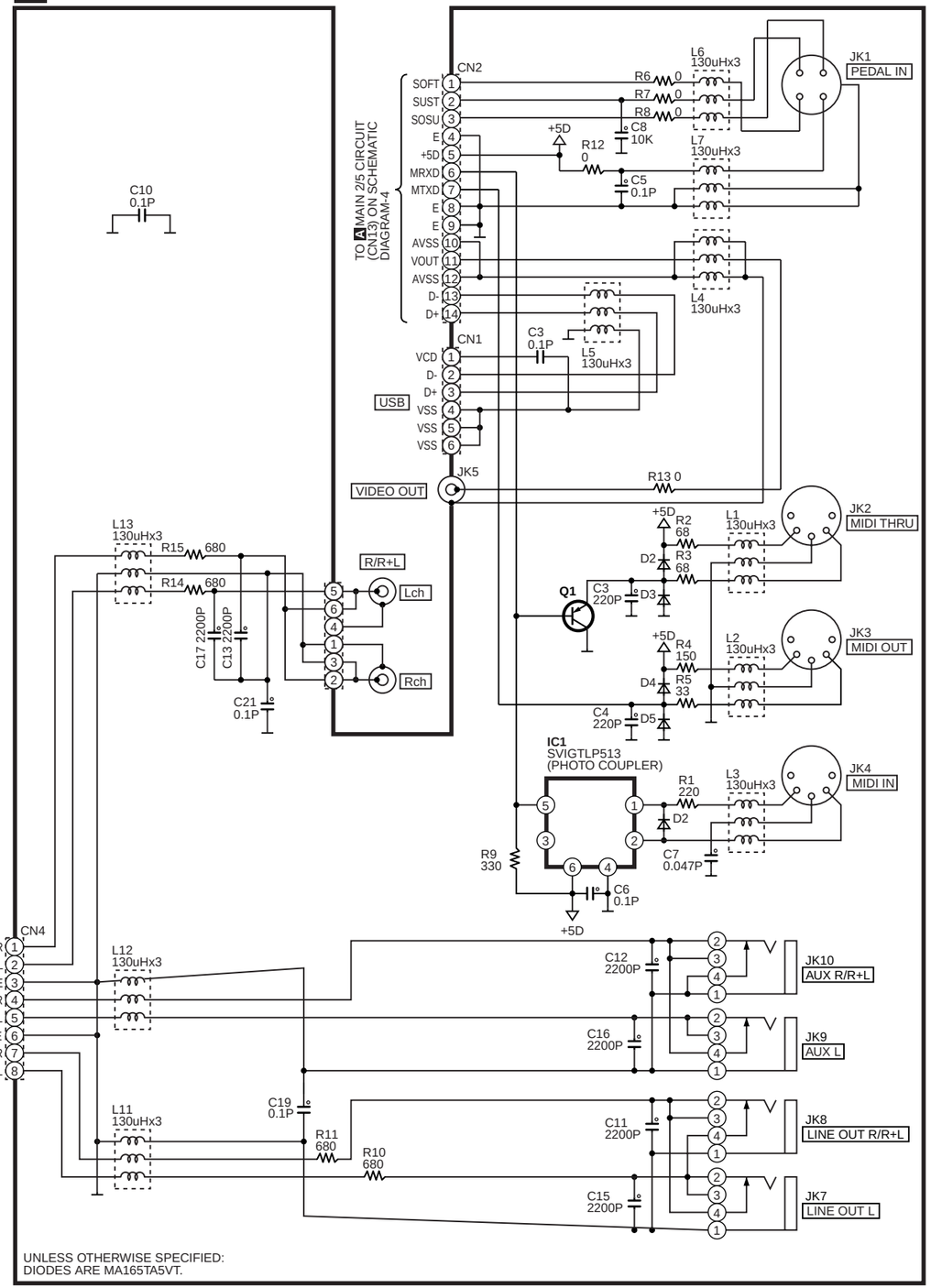


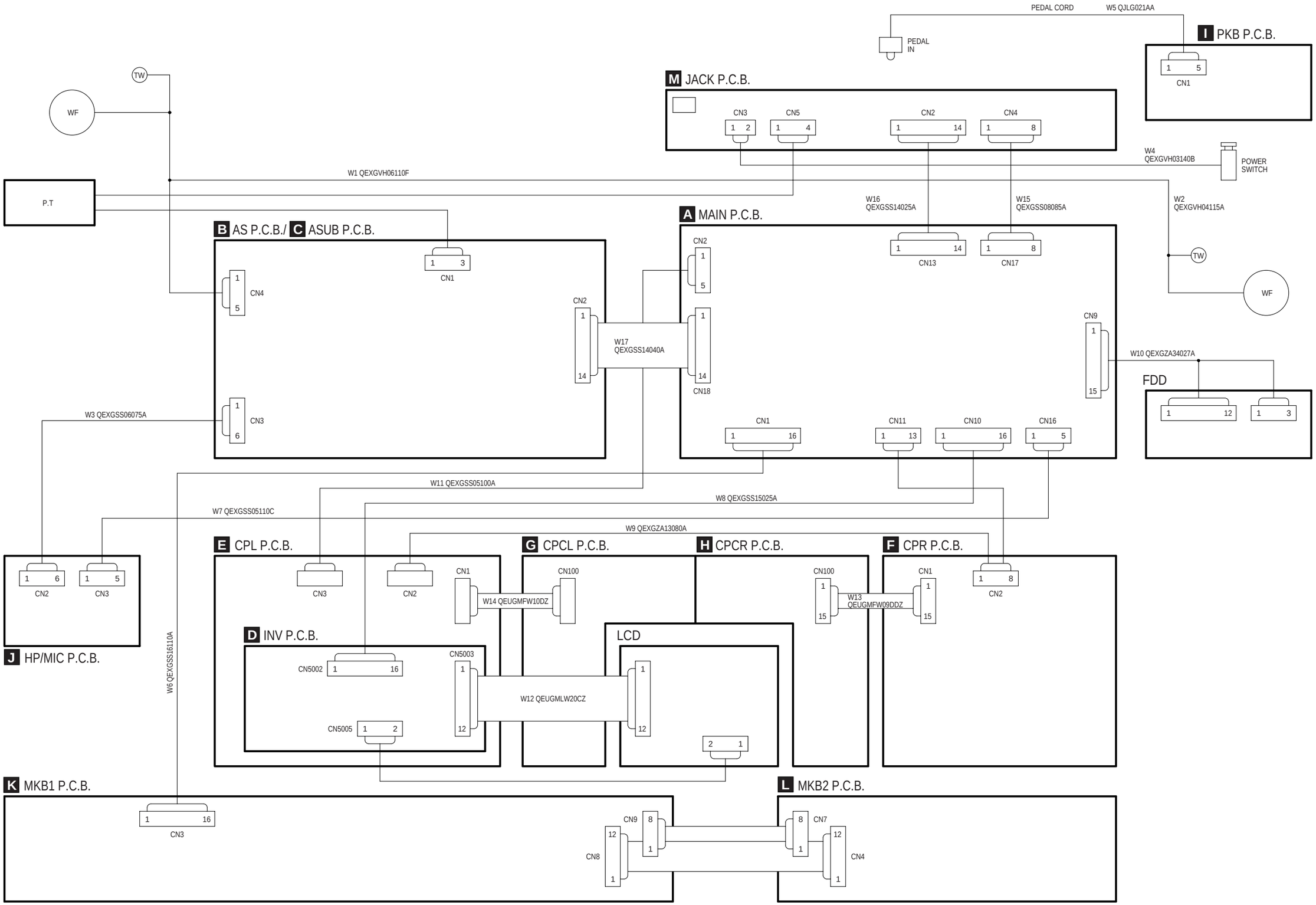
UNLESS OTHERWISE SPECIFIED:
DIODES ARE MA165.

SCHEMATIC DIAGRAM-18



M JACK 1/2 CIRCUIT

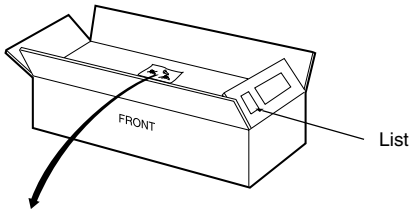



PEDAL CORD
W5 QJLG021AA
PEDAL IN
I PKB P.C.B.
CN1
M JACK P.C.B.
CN3
CN5
CN2
CN4
W4 QEXGVH03140B
POWER SWITCH
W1 QEXGVH06110F
P.T
W16 QEXGSS14025A
W15 QEXGSS08085A
W2 QEXGVH04115A
A MAIN P.C.B.
B AS P.C.B./ C ASUB P.C.B.
CN13
CN17
TW
WF
CN4
CN18
W17 QEXGSS14040A
CN9
W10 QEXGZA34027A
FDD
W3 QEXGSS06075A
CN16
CN11
CN10
W11 QEXGSS05100A
W8 QEXGSS15025A
W7 QEXGSS05110C
W9 QEXGZA13080A
E CPL P.C.B.
G CPCL P.C.B.
H CPCR P.C.B.
F CPR P.C.B.
CN100
W14 QEUGMFW10DZ
W13 QEUGMFW09DDZ
D INV P.C.B.
LCD
CN5003
CN5002
CN5005
W12 QEUGMLW20CZ
J HP/MIC P.C.B.
W6 QEXGSS16110A
K MKB1 P.C.B.
L MKB2 P.C.B.
CN8
CN7

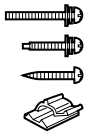
Assembly (PR604)

Follow the steps below to assemble your Technics piano. Make sure you are using the correct parts and that they are in the correct direction.
- At least 2 people are required for assembly.
- To disassemble the piano, reverse the procedure.

1. Remove the packing and take the parts out of the carton. Confirm that all the parts on the printed list are present.

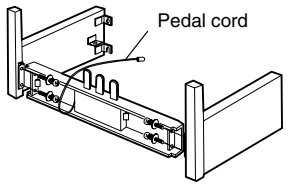


2. The following parts are in the screw kit.



Brass-colored screw 4
Black screw (A) 6
Black screw (B) 4
Clamp 3

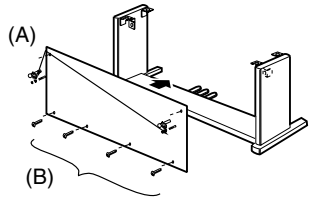
3. Affix the right and left side planks to the pedal box.



(1) Use the 4 brass-colored screws to secure the planks.
(2) Loosen the pedal cord, stowed on the inner side of the pedal box, and extend it.

4. Affix the rear panel.

Use 2 black screws (A) and 4 black screws (B) to affix the rear panel.

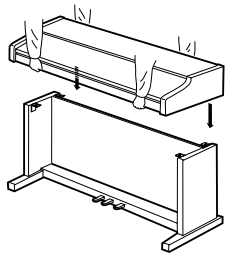


5. Place the piano body on the stand.

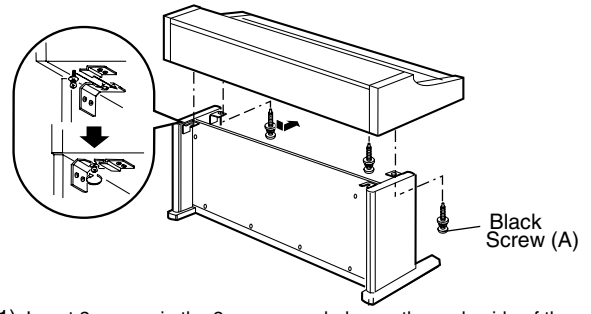
WARNING:
Avoid pinching your fingers.

Note 1
Holding the piano body at least 10 cm in from the edge, place it on the stand so that it does not fall off.

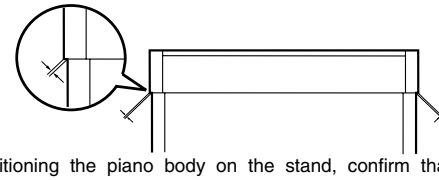
Note 2
If the piano body is placed too far to the right or left, or to the front or back, it will become unstable.



6. Secure the piano body to the stand.

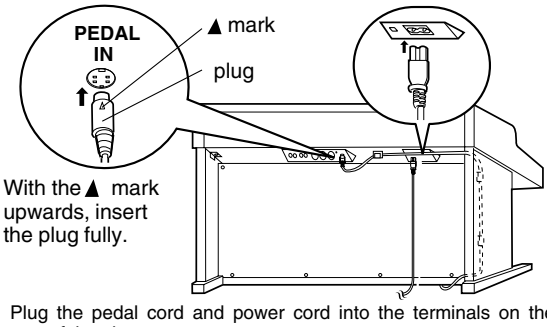


(1) Insert 2 screws in the 2 rear screw holes on the underside of the piano body, and turn each screw 5 or 6 times. Push the piano body forward so that the screws are fully inserted in the cutout of the metal piece on either side plank. (This enables you to easily position the piano body on the stand.)
(2) Adjust the piano body so that the right and left sides project evenly over the stand.



(3) Positioning the piano body on the stand, confirm that the 4 screws can easily be inserted.
(4) Tighten the 4 screws securely.

7. Connect the pedal cord and power cord to the terminals.



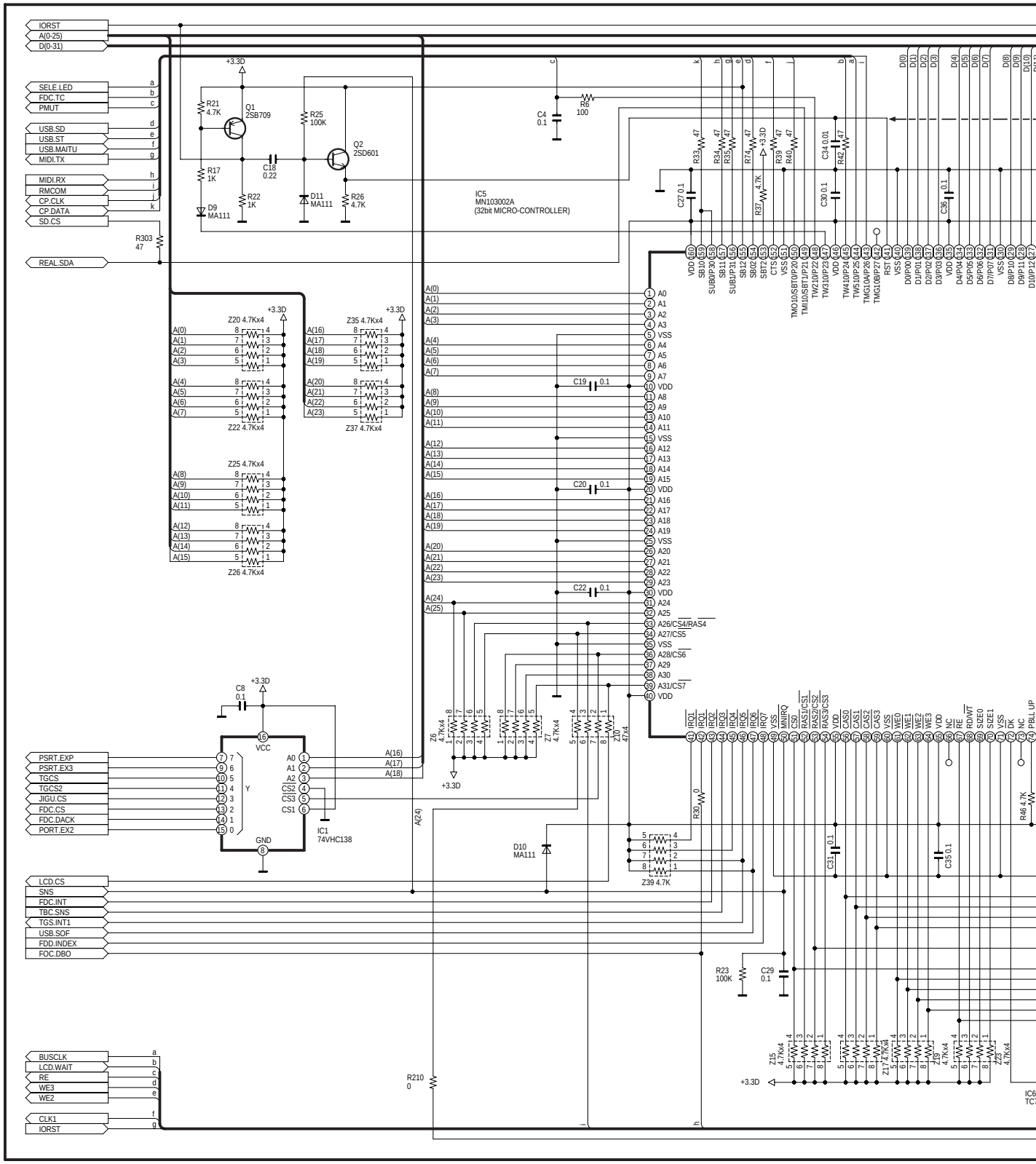
(1) Plug the pedal cord and power cord into the terminals on the rear of the piano.
(2) Remove the backing from the clamps and affix them as shown in the figure. Secure the pedal cord to the clamps.

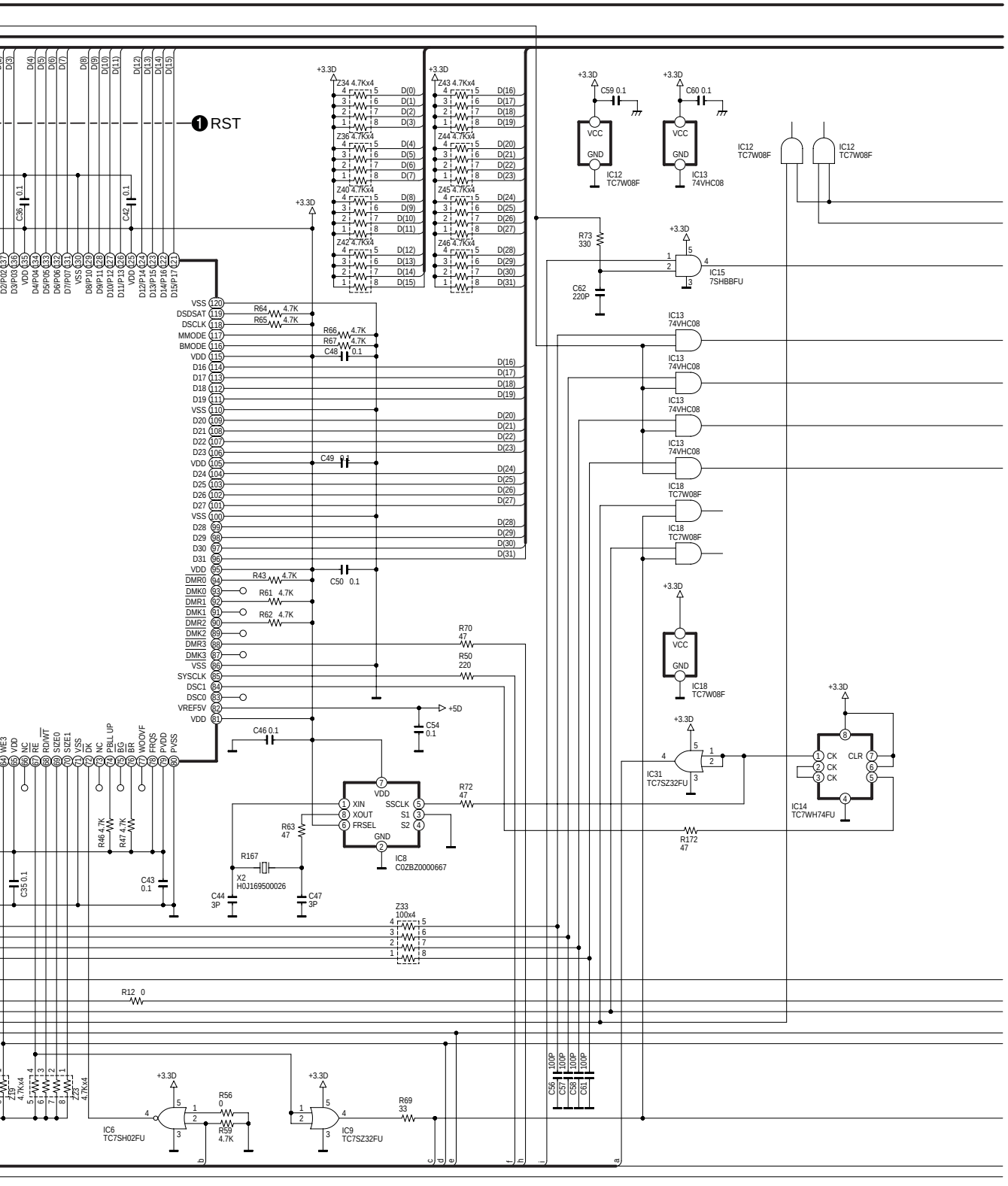
Confirm: After assembling, check these points.
Are any parts left over?
→ Check the assembly procedure again.
Does the piano rattle when it is rocked?
→ Make sure all the screws are securely tightened.
Is the power cord firmly inserted?
→ Check again.
Is the plug of the pedal cord inserted as far into the connector terminal as it will go?
→ If it is not completely inserted, the sustain and other pedal functions may not work.

■ When the piano has been moved or transported, retighten the screws securely.

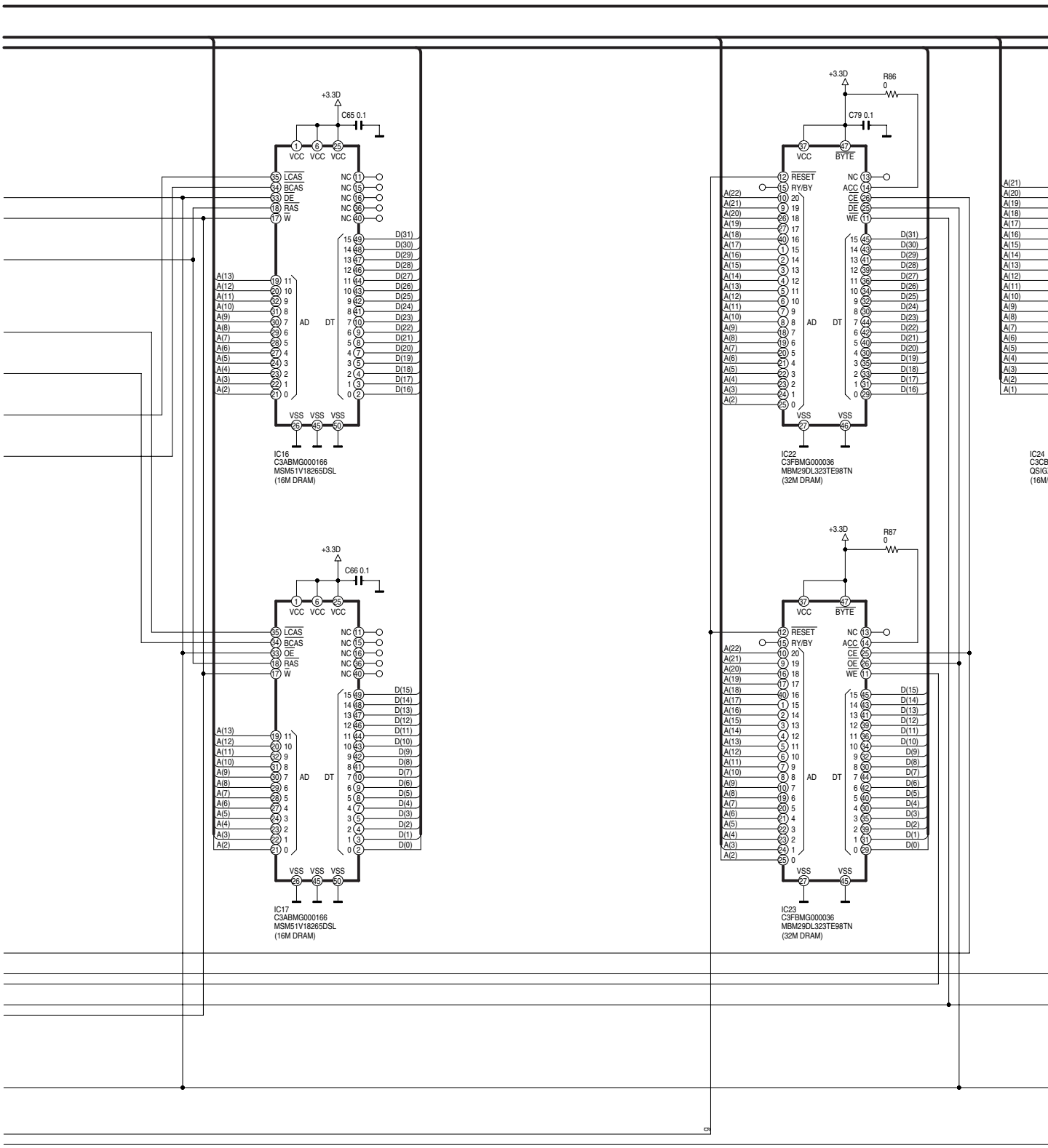
SCHEMATIC DIAGRAM-1

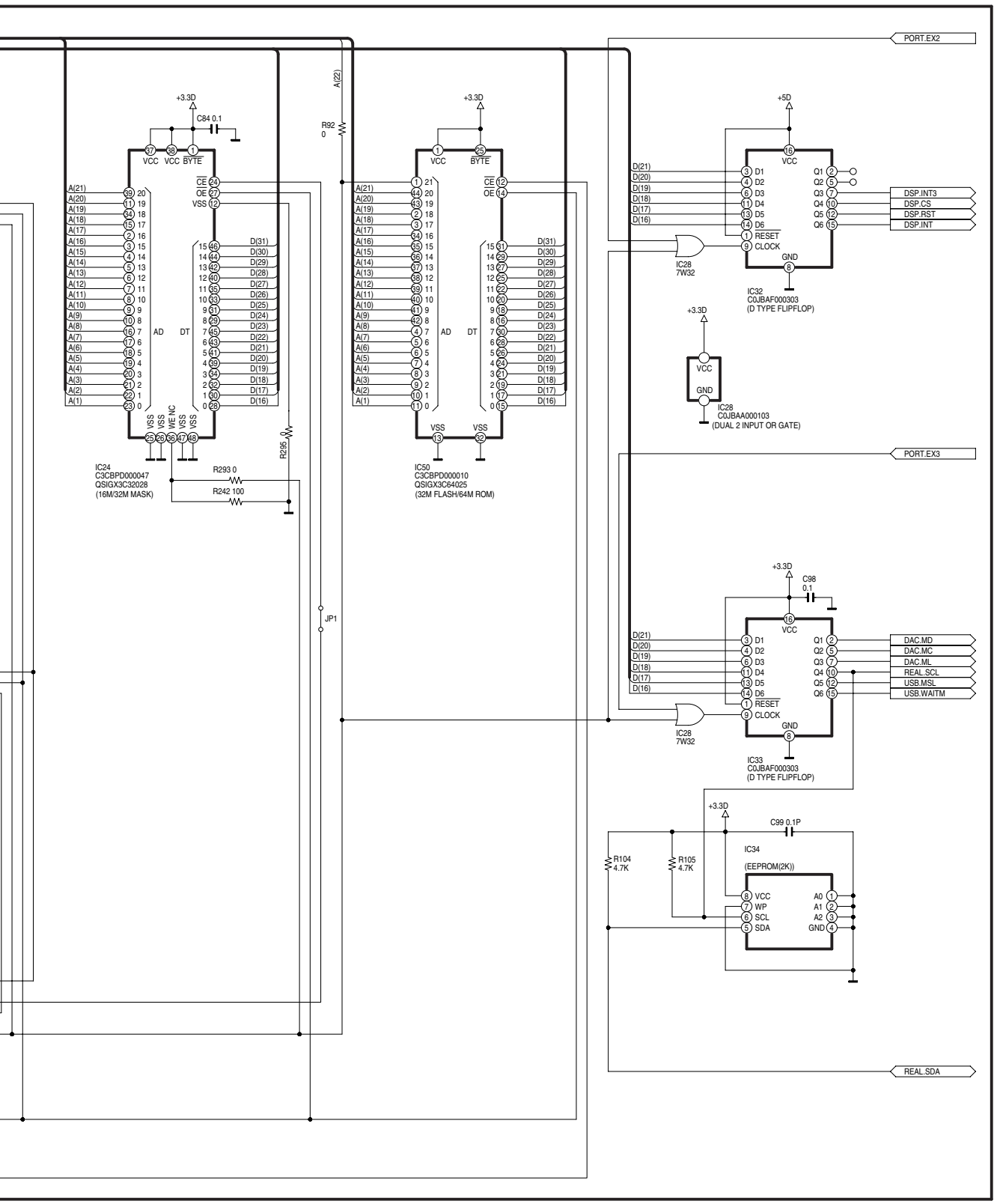
A MAIN 1/5 CIRCUIT




RST
+3.3D
+5D
Z34 4.7Kx4
Z36 4.7Kx4
Z40 4.7Kx4
Z42 4.7Kx4
Z43 4.7Kx4
Z44 4.7Kx4
Z45 4.7Kx4
Z46 4.7Kx4
Z33 100x4
Z19 4.7Kx4
Z23 4.7Kx4
C59 0.1
C60 0.1
C36 0.1
C42 0.1
C48 0.1
C49 0.1
C50 0.1
C46 0.1
C54 0.1
C35 0.1
C43 0.1
C44 3P
C47 3P
C62 220P
C56 100P
C57 100P
C58 100P
C61 100P
R64 4.7K
R65 4.7K
R66 4.7K
R67 4.7K
R43 4.7K
R61 4.7K
R62 4.7K
R46 4.7K
R47 4.7K
R63 47
R70 47
R50 220
R72 47
R172 47
R73 330
R167
R12 0
R56 0
R59 4.7K
R69 33
X2 H0J169500026
IC8 C0ZBZ0000667
IC12 TC7W08F
IC13 74VHC08
IC15 7SHBBFU
IC18 TC7W08F
IC31 TC7SZ32FU
IC14 TC7WH74FU
IC6 TC7SH02FU
IC9 TC7SZ32FU
VSS
DSDSAT
DSCLK
MMODE
BMODE
VDD
D16
D17
D18
D19
D20
D21
D22
D23
D24
D25
D26
D27
D28
D29
D30
D31
DMR0
DMK0
DMR1
DMK1
DMR2
DMK2
DMR3
DMK3
SYSCLK
DSC1
DSC0
VREF5V
XIN
XOUT
FRSEL
SSCLK
S1
S2
CK
CLR

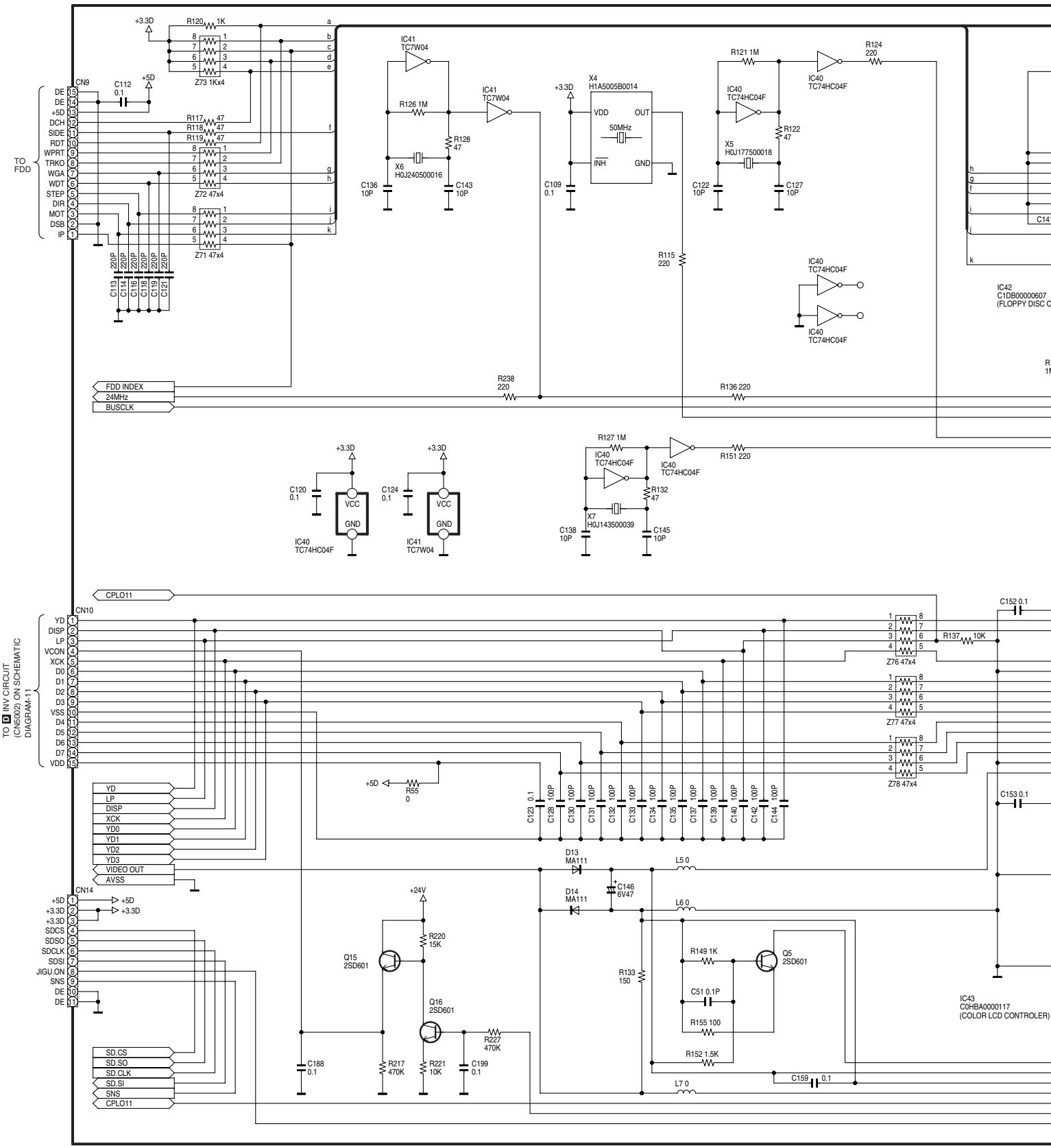
SCHEMATIC DIAGRAM-2

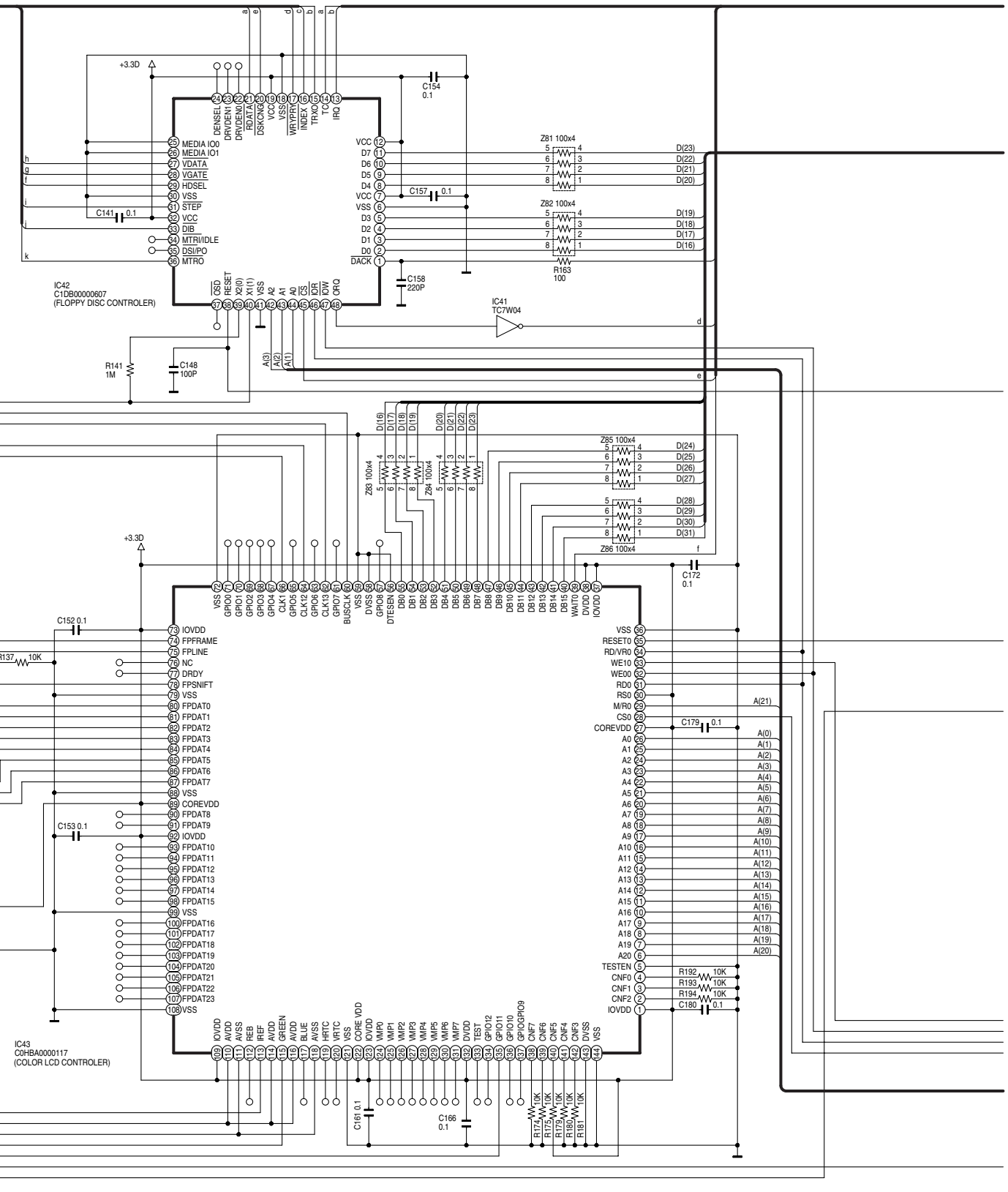



PORT.EX2
PORT.EX3
REAL.SDA
+3.3D
+5D
C84 0.1
C98 0.1
C99 0.1P
R92 0
R293 0
R242 100
R295 0
R104 4.7K
R105 4.7K
JP1
A(22)
IC24
C3CBPD000047
QSIGX3C32028
(16M/32M MASK)
IC50
C3CBPD000010
QSIGX3C64025
(32M FLASH/64M ROM)
IC28
7W32
IC32
C0JBAF000303
(D TYPE FLIPFLOP)
IC33
C0JBAF000303
(D TYPE FLIPFLOP)
IC28
C0JBAA000103
(DUAL 2 INPUT OR GATE)
IC34
(EEPROM(2K))
DSP.INT3
DSP.CS
DSP.RST
DSP.INT
DAC.MD
DAC.MC
DAC.ML
REAL.SCL
USB.MSL
USB.WAITM

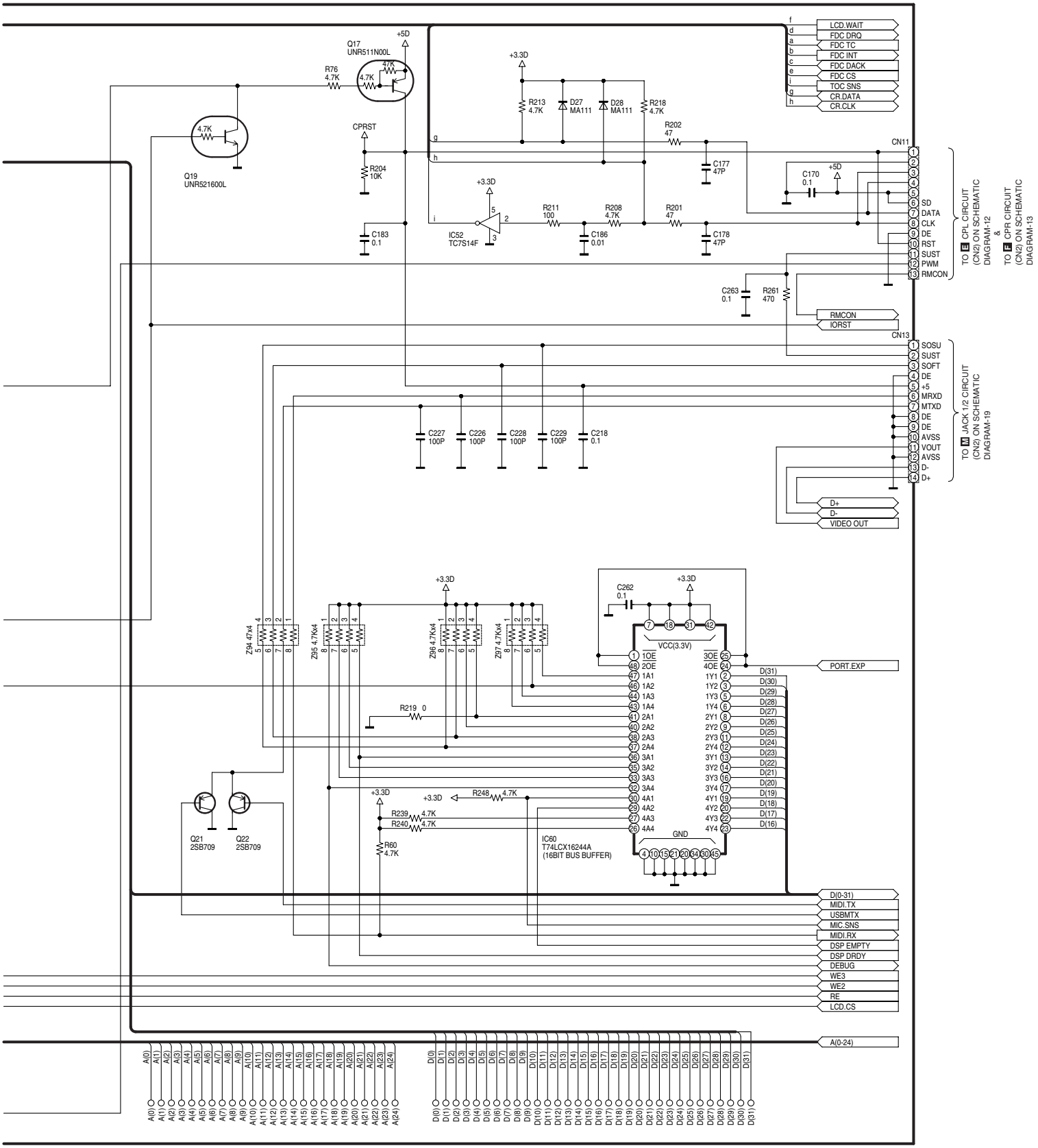
SCHEMATIC DIAGRAM-3

A MAIN 2/5 CIRCUIT




IC42
C1DB00000607
(FLOPPY DISC CONTROLER)
IC41
TC7W04
IC43
C0HBA0000117
(COLOR LCD CONTROLER)
+3.3D
C154 0.1
C157 0.1
C158 220P
C141 0.1
C148 100P
R141 1M
R163 100
Z81 100x4
Z82 100x4
Z83 100x4
Z84 100x4
Z85 100x4
Z86 100x4
C172 0.1
C152 0.1
C153 0.1
C179 0.1
C180 0.1
C161 0.1
C166 0.1
R137 10K
R174 10K
R175 10K
R179 10K
R180 10K
R181 10K
R192 10K
R193 10K
R194 10K
MEDIA IO0
MEDIA IO1
VDATA
VGATE
HDSEL
STEP
DIB
MTRI/IDLE
DSI/PO
MTRO
DENSEL
DRVDEN1
DRVDEN0
RDATA
DSKCNG
WRYPRTY
INDEX
TRK0
TC
IRQ
RESET
X2(0)
X1(1)
A2
A1
A0
CS
DIR
DW
DRQ
DACK
FPFRAME
FPLINE
NC
DRDY
FPSNIFT
FPDAT0
FPDAT1
FPDAT2
FPDAT3
FPDAT4
FPDAT5
FPDAT6
FPDAT7
FPDAT8
FPDAT9
FPDAT10
FPDAT11
FPDAT12
FPDAT13
FPDAT14
FPDAT15
FPDAT16
FPDAT17
FPDAT18
FPDAT19
FPDAT20
FPDAT21
FPDAT22
FPDAT23
RESET0
RD/VR0
WE10
WE00
RD0
RS0
M/R0
CS0
COREVDD
TESTEN
CNF0
CNF1
CNF2
IOVDD
AVDD
AVSS
REB
IREF
GREEN
BLUE
HRTC
VRTC
CORE VDD
TEST
DVSS
DVDD
WAIT0
BUSCLK
DTESEN
CLK1
CLK12
CLK13
GPIO0
GPIO1
GPIO2
GPIO3
GPIO4
GPIO5
GPIO6
GPIO7
GPIO8
VMP0
VMP1
VMP2
VMP3
VMP4
VMP5
VMP6
VMP7
GPIO12
GPIO11
GPIO10
GPIOGPIO9
CNF7
CNF6
CNF5
CNF4
CNF3
D(16)
D(17)
D(18)
D(19)
D(20)
D(21)
D(22)
D(23)
D(24)
D(25)
D(26)
D(27)
D(28)
D(29)
D(30)
D(31)
A(0)
A(1)
A(2)
A(3)
A(4)
A(5)
A(6)
A(7)
A(8)
A(9)
A(10)
A(11)
A(12)
A(13)
A(14)
A(15)
A(16)
A(17)
A(18)
A(19)
A(20)
A(21)

SCHEMATIC DIAGRAM-4

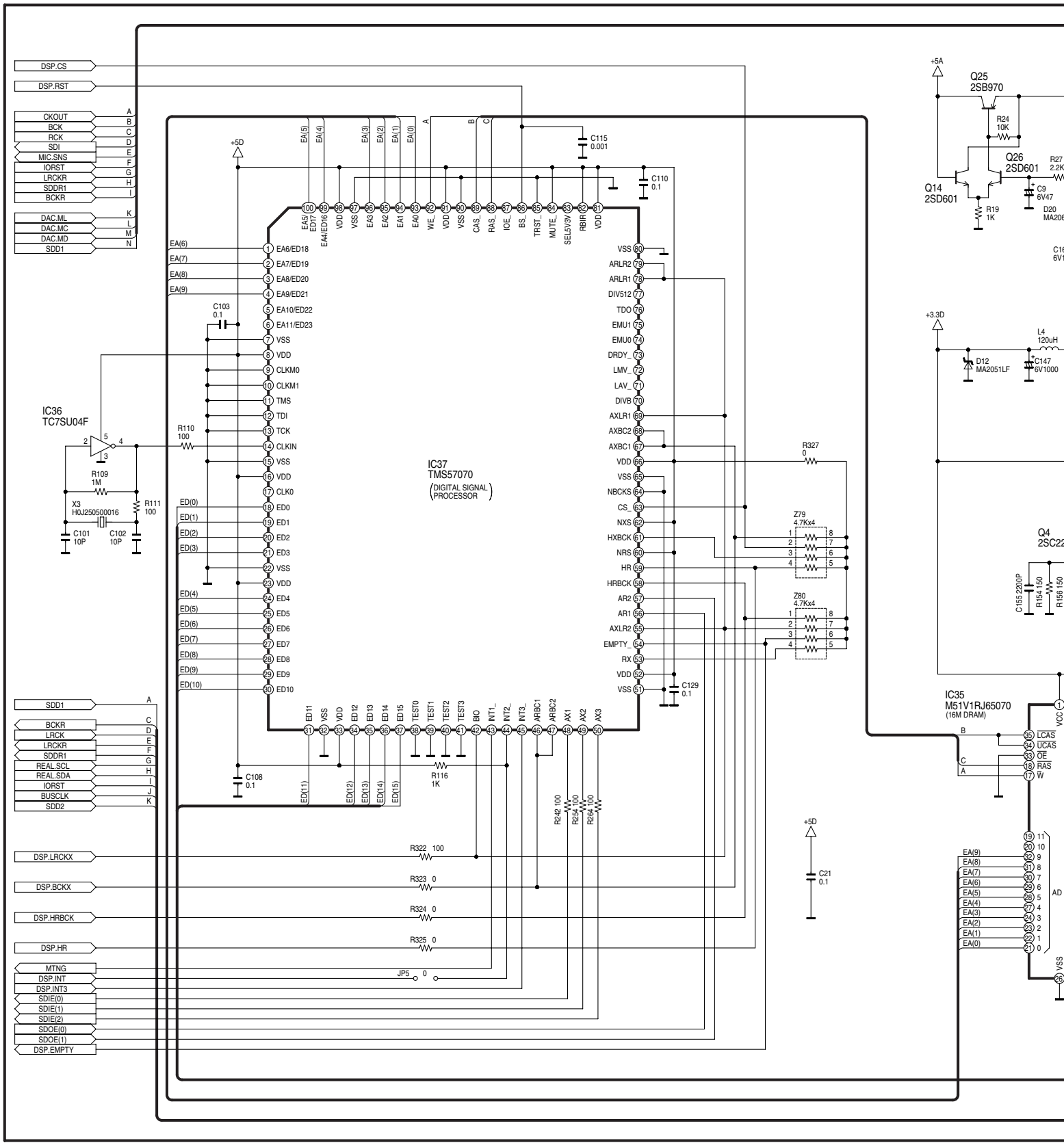


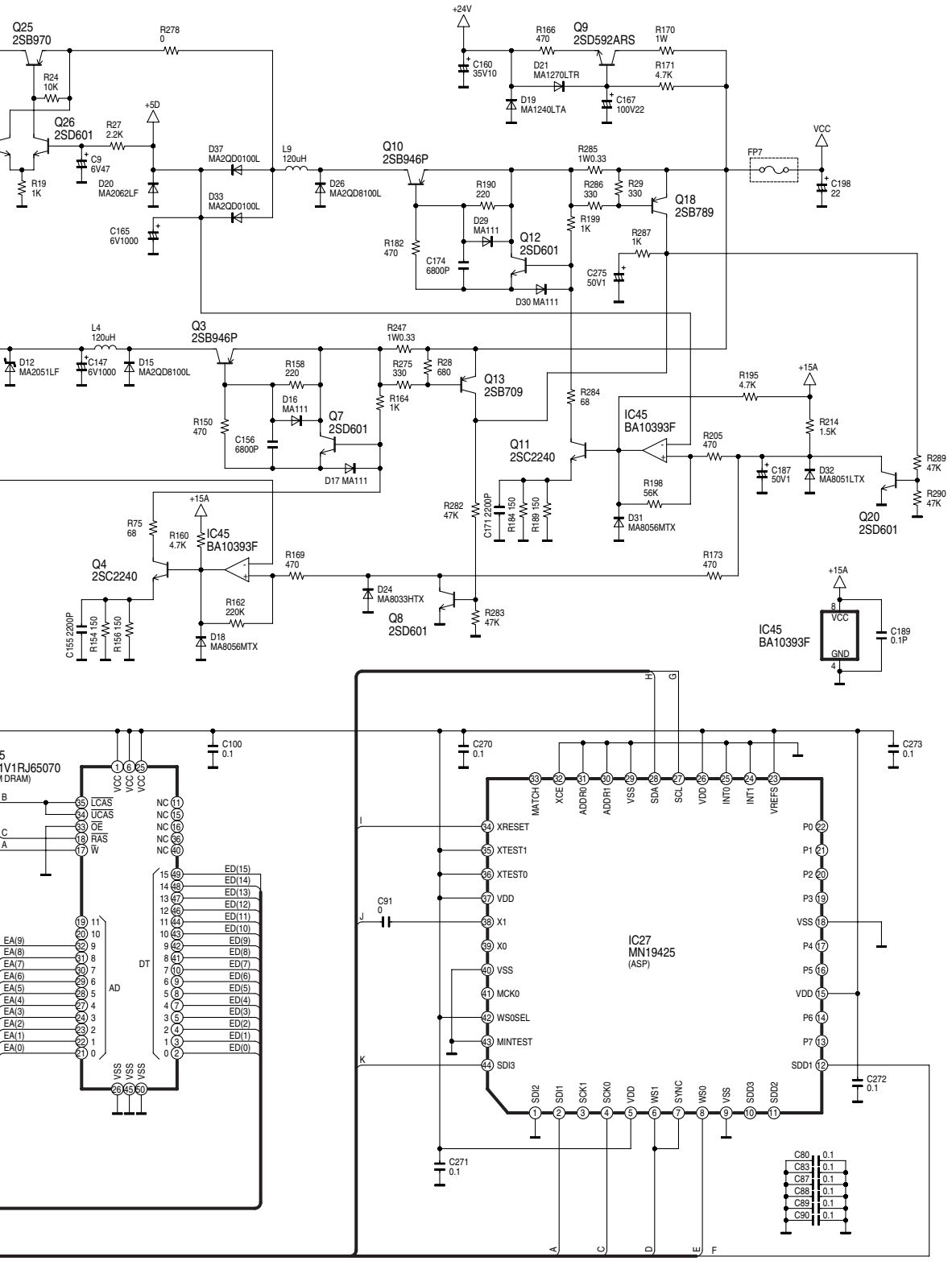
TO M JACK 1/2 CIRCUIT
(CN2) ON SCHEMATIC
DIAGRAM-19

TO E CPL CIRCUIT
(CN2) ON SCHEMATIC
DIAGRAM-12
&
TO F CPR CIRCUIT
(CN2) ON SCHEMATIC
DIAGRAM-13

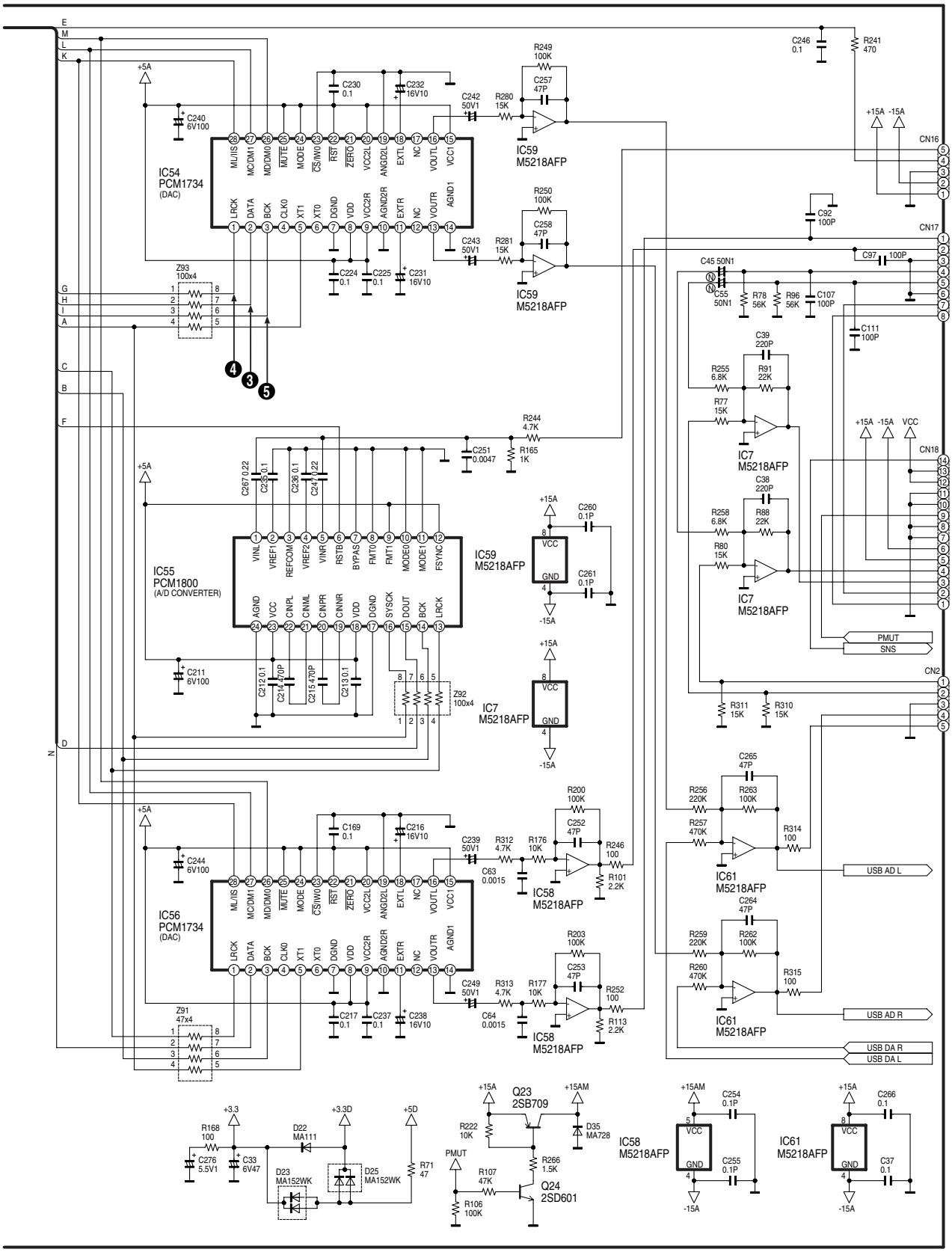
SCHEMATIC DIAGRAM-5

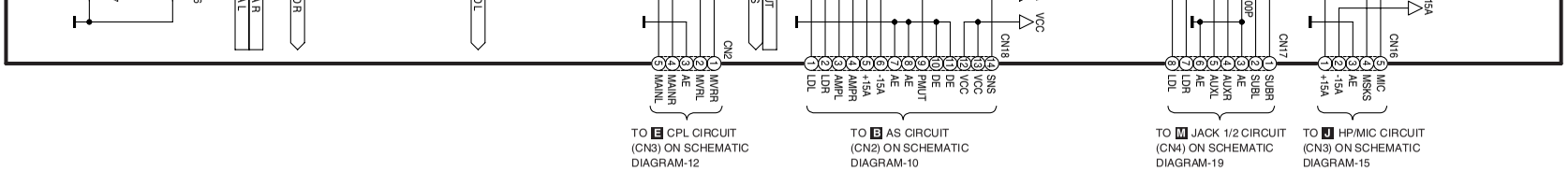
A MAIN 3/5 CIRCUIT




Q25
2SB970
R278
0
R24
10K
Q26
2SD601
R27
2.2K
+5D
C9
6V47
R19
1K
D20
MA2062LF
C165
6V1000
D37
MA2QD0100L
D33
MA2QD0100L
L9
120uH
D26
MA2QD8100L
+24V
C160
35V10
R166
470
Q9
2SD592ARS
R170
1W
D21
MA1270LTR
R171
4.7K
D19
MA1240LTA
C167
100V22
Q10
2SB946P
R285
1W0.33
FP7
VCC
C198
22
R190
220
R286
330
R29
330
Q18
2SB789
D29
MA111
R199
1K
Q12
2SD601
R182
470
C174
6800P
R287
1K
C275
50V1
D30 MA111
L4
120uH
Q3
2SB946P
R247
1W0.33
D12
MA2051LF
C147
6V1000
D15
MA2QD8100L
R158
220
R275
390
R28
680
Q13
2SB709
D16
MA111
R164
1K
R150
470
C156
6800P
Q7
2SD601
D17 MA111
R284
68
R195
4.7K
+15A
IC45
BA10393F
R214
1.5K
Q11
2SC2240
R205
470
C187
50V1
D32
MA8051LTX
R289
47K
R290
47K
Q20
2SD601
R198
56K
D31
MA8056MTX
R282
47K
C171 2200P
R184 150
R189 150
R75
68
R160
4.7K
IC45
BA10393F
Q4
2SC2240
R169
470
R173
470
D24
MA8033HTX
Q8
2SD601
R283
47K
R162
220K
D18
MA8056MTX
C155 2200P
R154 150
R156 150
IC45
BA10393F
C189
0.1P
C100
0.1
C270
0.1
C273
0.1
C91
0
IC27
MN19425
(ASP)
XRESET
XTEST1
XTEST0
VDD
X1
X0
VSS
MCK0
WS0SEL
MINTEST
SDI3
P0
P1
P2
P3
P4
P5
P6
P7
SDD1
C272
0.1
C271
0.1
C80
C83
C87
C88
C89
C90
0.1
LCAS
UCAS
OE
RAS
W
NC
ED(15)
ED(14)
ED(13)
ED(12)
ED(11)
ED(10)
ED(9)
ED(8)
ED(7)
ED(6)
ED(5)
ED(4)
ED(3)
ED(2)
ED(1)
ED(0)
EA(9)
EA(8)
EA(7)
EA(6)
EA(5)
EA(4)
EA(3)
EA(2)
EA(1)
EA(0)
AD
DT
VCC
VSS

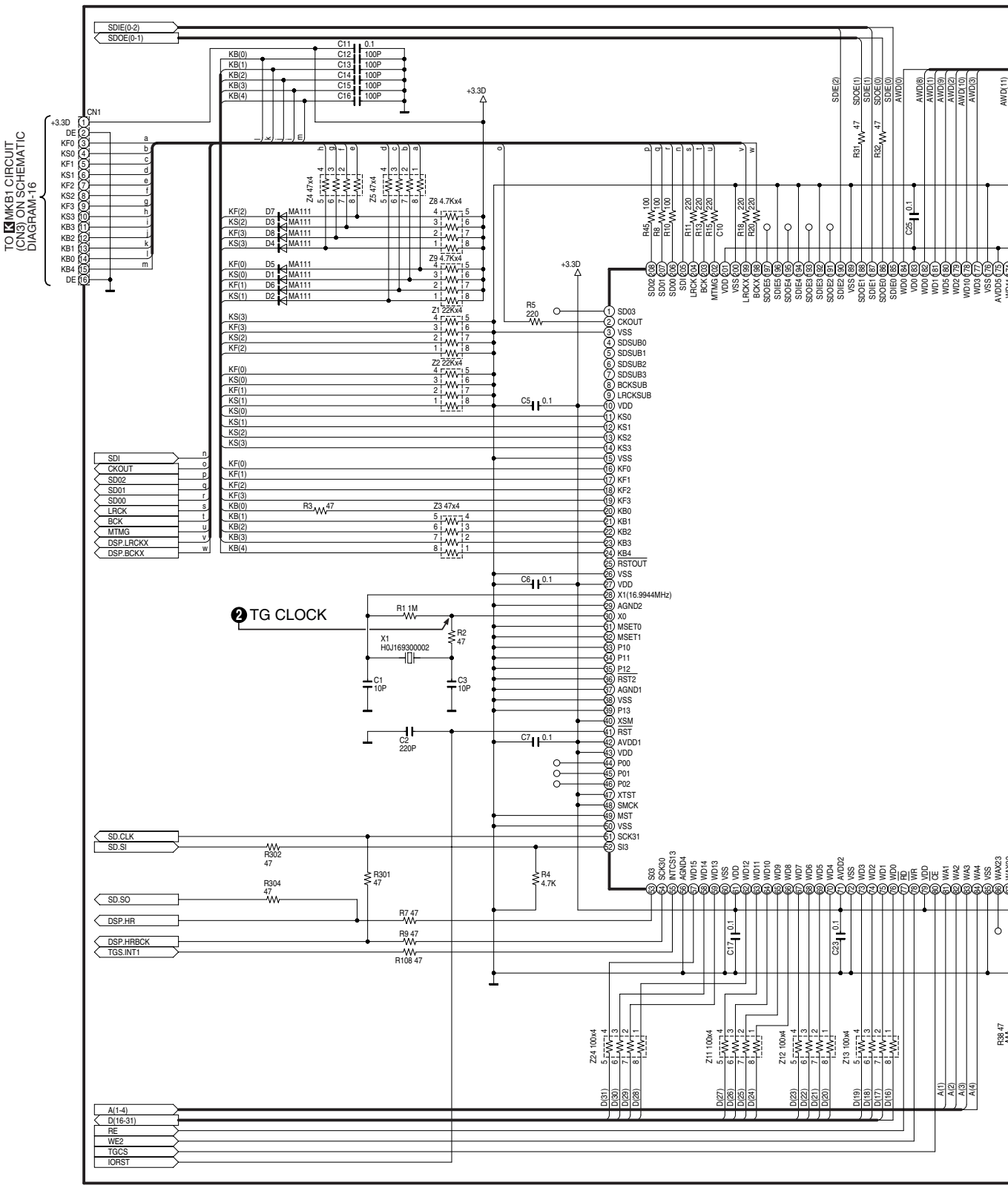
SCHEMATIC DIAGRAM-6

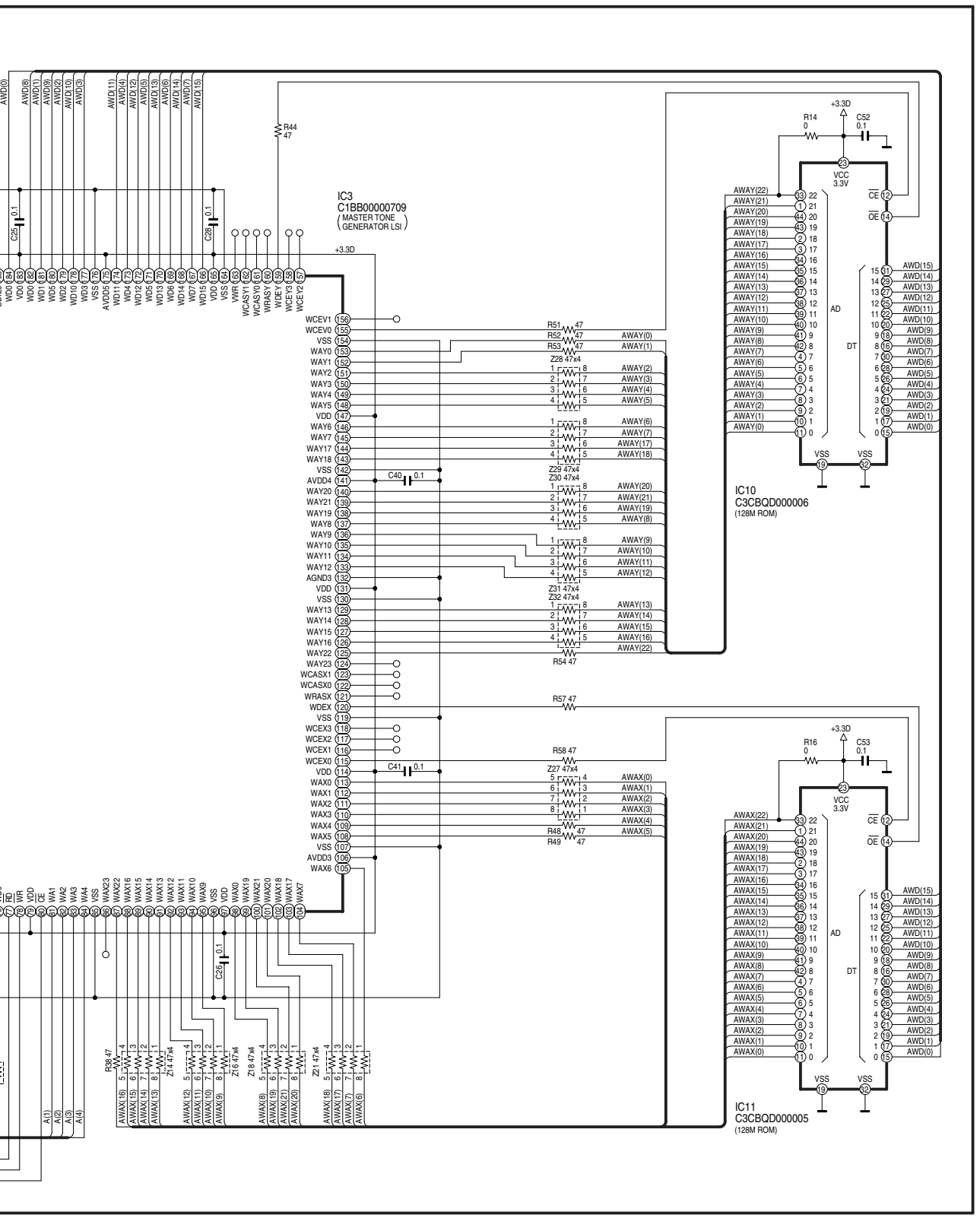



CN2
MVFR
MVRL
AE
MAINR
MAINL
CN18
SNS
VCC
VCC
DE
DE
PMUT
AE
AE
+15A
AMPR
LDR
LDL
CN17
SUBR
SUBL
AE
AUXR
AUXL
AE
LDR
LDL
CN16
MIC
MSNS
AE
-15A
+15A
TO E CPL CIRCUIT
(CN3) ON SCHEMATIC
DIAGRAM-12
TO B AS CIRCUIT
(CN2) ON SCHEMATIC
DIAGRAM-10
TO M JACK 1/2 CIRCUIT
(CN4) ON SCHEMATIC
DIAGRAM-19
TO J HP/MIC CIRCUIT
(CN3) ON SCHEMATIC
DIAGRAM-15

SCHEMATIC DIAGRAM-7

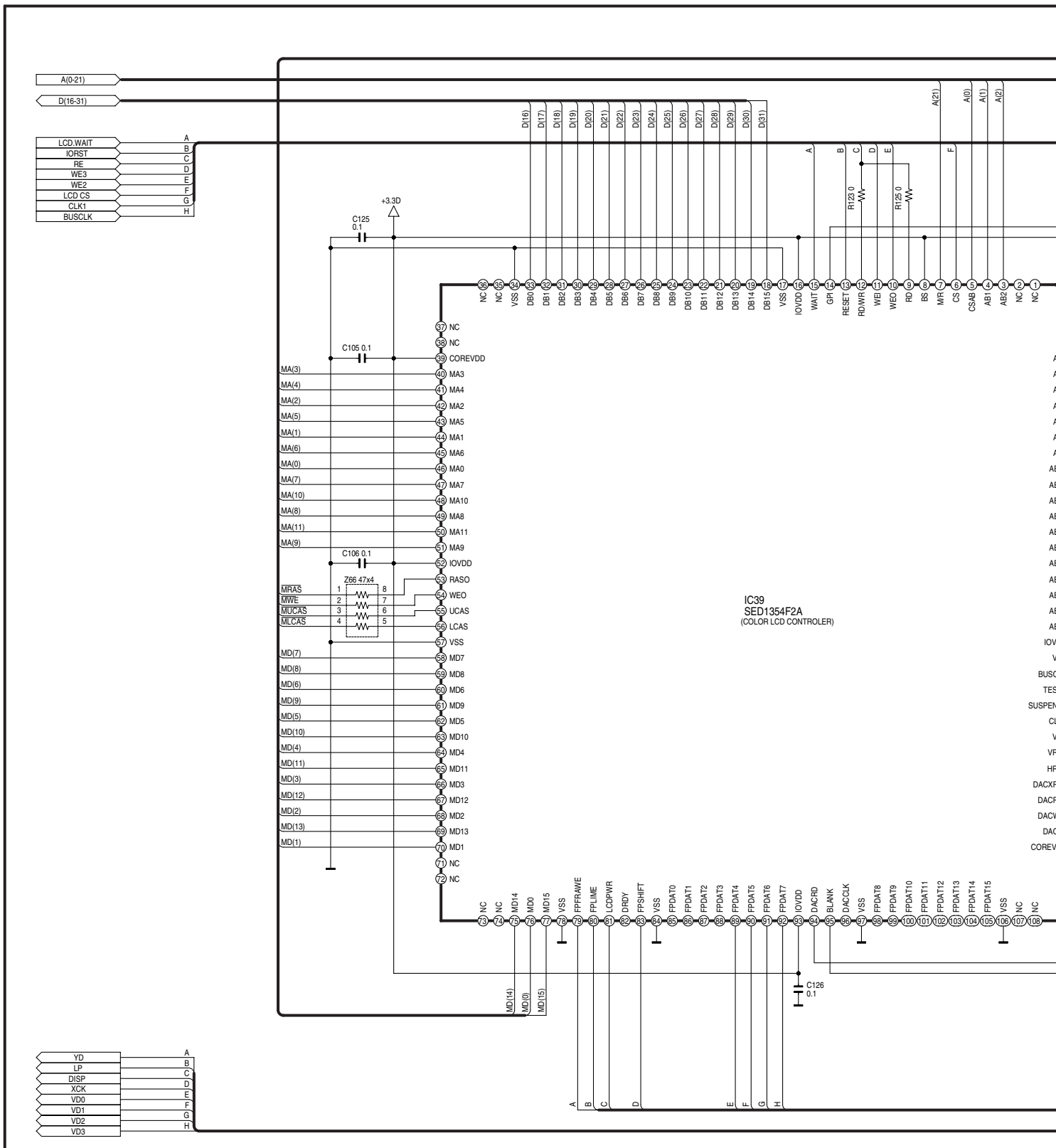
A MAIN 4/5 CIRCUIT

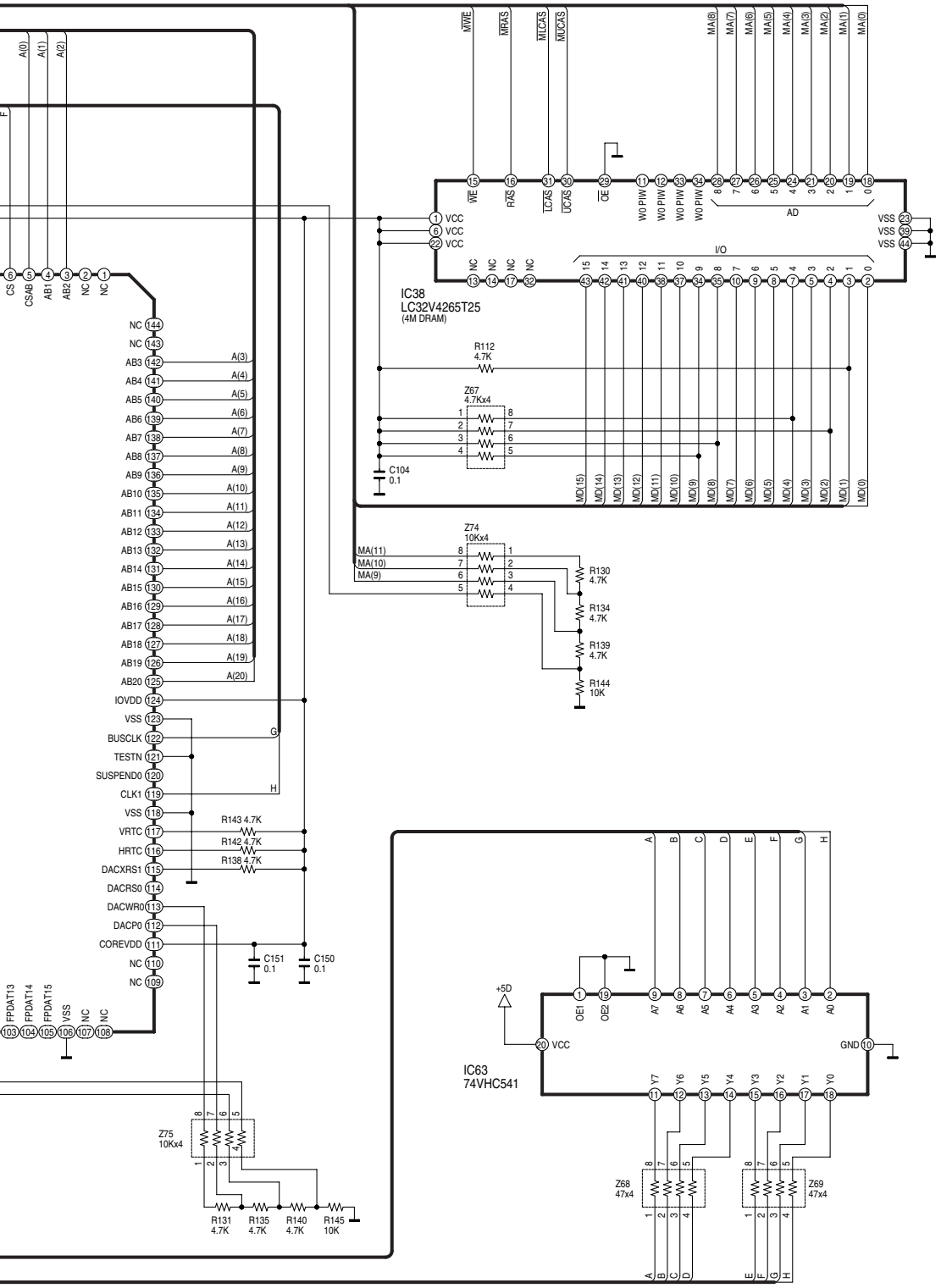



IC3
C1BB00000709
(MASTER TONE
GENERATOR LSI)
+3.3D
R44
47
C25
0.1
C28
0.1
C40
0.1
C41
0.1
C26
0.1
R51 47
R52 47
R53 47
R54 47
R57 47
R58 47
R48 47
R49 47
Z28 47x4
Z29 47x4
Z30 47x4
Z31 47x4
Z32 47x4
Z27 47x4
Z74 47x4
Z76 47x4
Z18 47x4
Z21 47x4
R88 47
AWD(0)
AWD(8)
AWD(1)
AWD(9)
AWD(2)
AWD(10)
AWD(3)
AWD(11)
AWD(4)
AWD(12)
AWD(5)
AWD(13)
AWD(6)
AWD(14)
AWD(7)
AWD(15)
WCEV1
WCEV0
VSS
WAY0
WAY1
WAY2
WAY3
WAY4
WAY5
VDD
WAY6
WAY7
WAY17
WAY18
VSS
AVDD4
WAY20
WAY21
WAY19
WAY8
WAY9
WAY10
WAY11
WAY12
AGND3
VDD
VSS
WAY13
WAY14
WAY15
WAY16
WAY22
WAY23
WCASX1
WCASX0
WRASX
WDEX
VSS
WCEX3
WCEX2
WCEX1
WCEX0
VDD
WAX0
WAX1
WAX2
WAX3
WAX4
WAX5
VSS
AVDD3
WAX6
AWAY(0)
AWAY(1)
AWAY(2)
AWAY(3)
AWAY(4)
AWAY(5)
AWAY(6)
AWAY(7)
AWAY(17)
AWAY(18)
AWAY(20)
AWAY(21)
AWAY(19)
AWAY(8)
AWAY(9)
AWAY(10)
AWAY(11)
AWAY(12)
AWAY(13)
AWAY(14)
AWAY(15)
AWAY(16)
AWAY(22)
AWAX(0)
AWAX(1)
AWAX(2)
AWAX(3)
AWAX(4)
AWAX(5)
R14
0
C52
0.1
R16
0
C53
0.1
VCC
3.3V
AD
DT
CE
OE
VSS
IC10
C3CBQD000006
(128M ROM)
IC11
C3CBQD000005
(128M ROM)
WCE13
WCE12
WDEY
WRASY
WCAST1
WCAST0
VWR
VSS
VDD
WD15
WD7
WD14
WD6
WD13
WD5
WD12
WD4
WD11
WD3
WD10
WD2
WD9
WD1
WD8
WD0
AVDD5
VSS
WD3
WD10
WD2
WD9
WD1
WD8
WD0
VDD
VSS
WR
RD
VDD
CE
WA1
WA2
WA3
WA4
VSS
WAX23
WAX22
WAX16
WAX15
WAX14
WAX13
WAX12
WAX11
WAX10
WAX9
VSS
VDD
WAX0
WAX19
WAX21
WAX20
WAX18
WAX17
WAX7
A(1)
A(2)
A(3)
A(4)
AWAX(16)
AWAX(15)
AWAX(14)
AWAX(13)
AWAX(12)
AWAX(11)
AWAX(10)
AWAX(9)
AWAX(8)
AWAX(19)
AWAX(21)
AWAX(20)
AWAX(18)
AWAX(17)
AWAX(7)
AWAX(6)

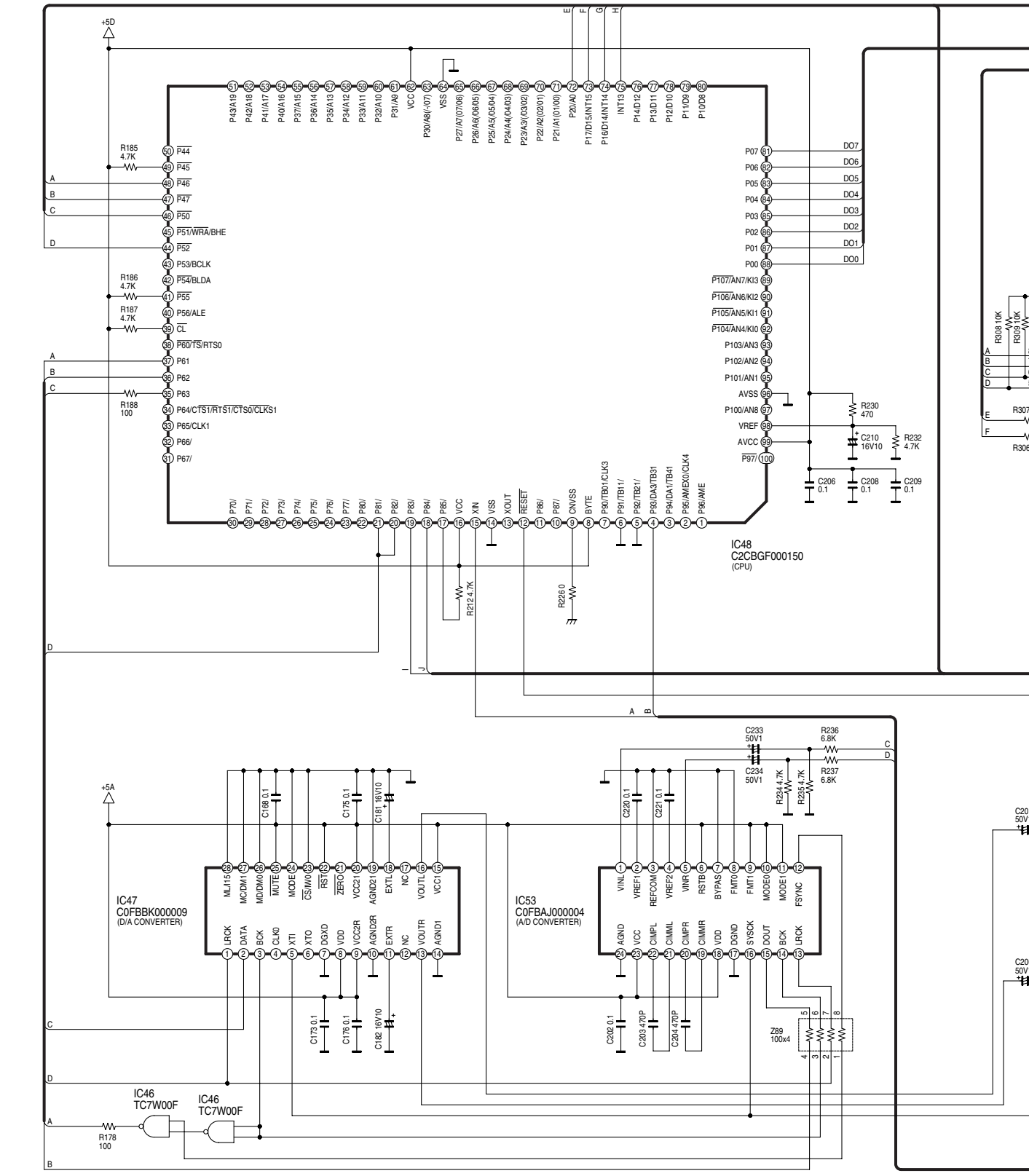
SCHEMATIC DIAGRAM-8

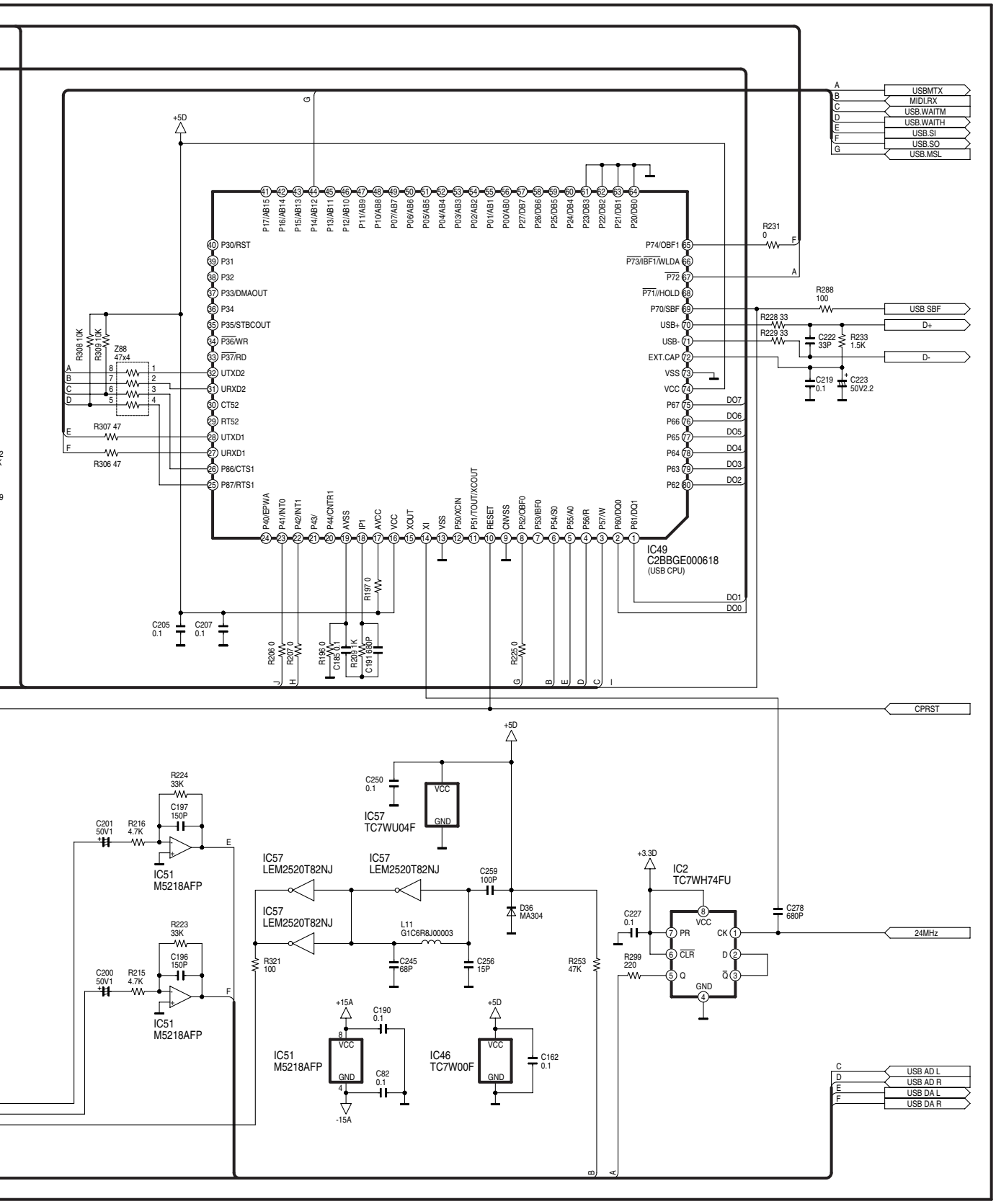
A MAIN 5/5 CIRCUIT



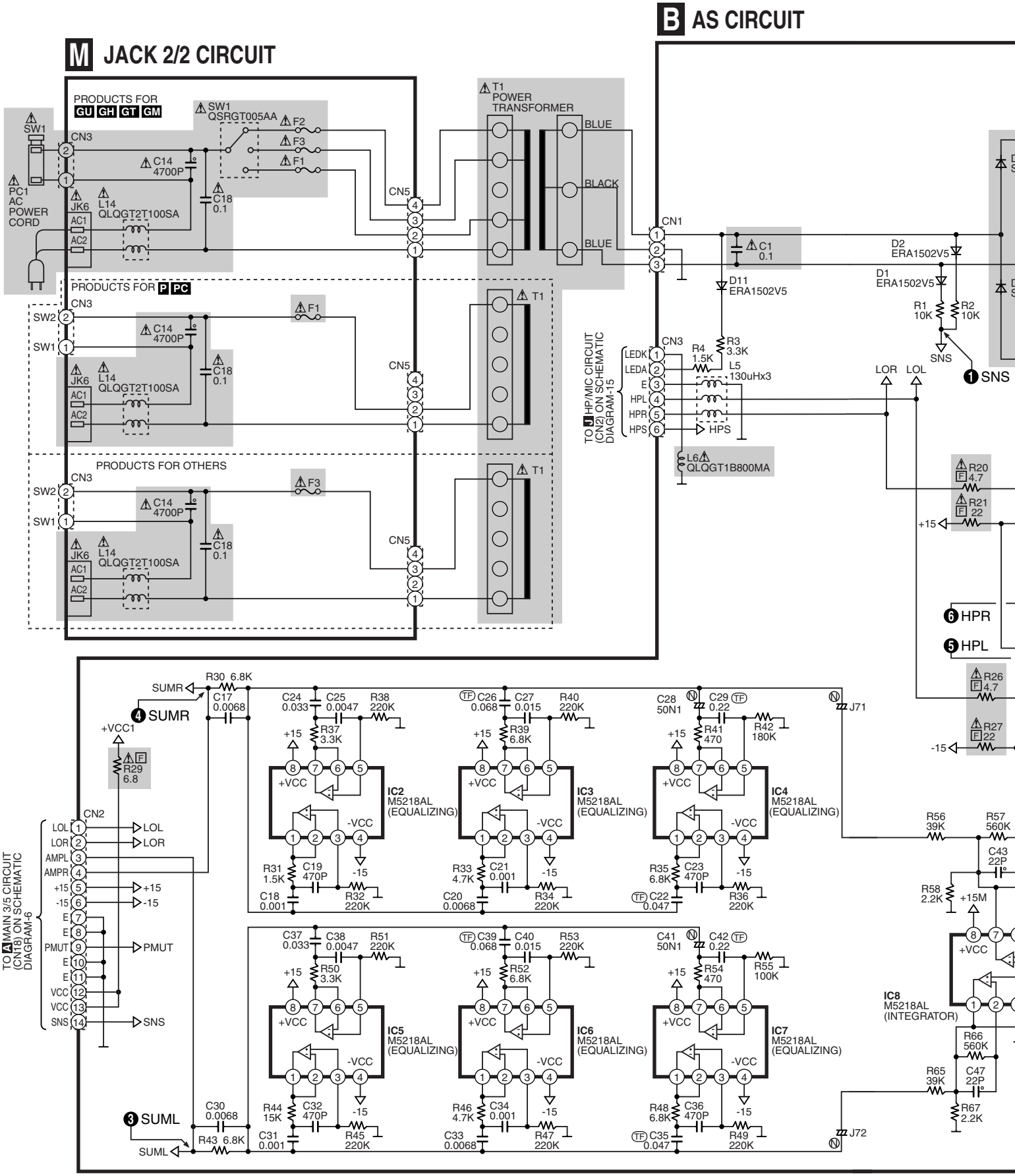

IC38
LC32V4265T25
(4M DRAM)
IC63
74VHC541
AD
I/O
R112 4.7K
Z67 4.7Kx4
C104 0.1
Z74 10Kx4
R130 4.7K
R134 4.7K
R139 4.7K
R144 10K
R143 4.7K
R142 4.7K
R138 4.7K
C151 0.1
C150 0.1
Z75 10Kx4
R131 4.7K
R135 4.7K
R140 4.7K
R145 10K
Z68 47x4
Z69 47x4
+5D
VCC
GND
VSS
NC

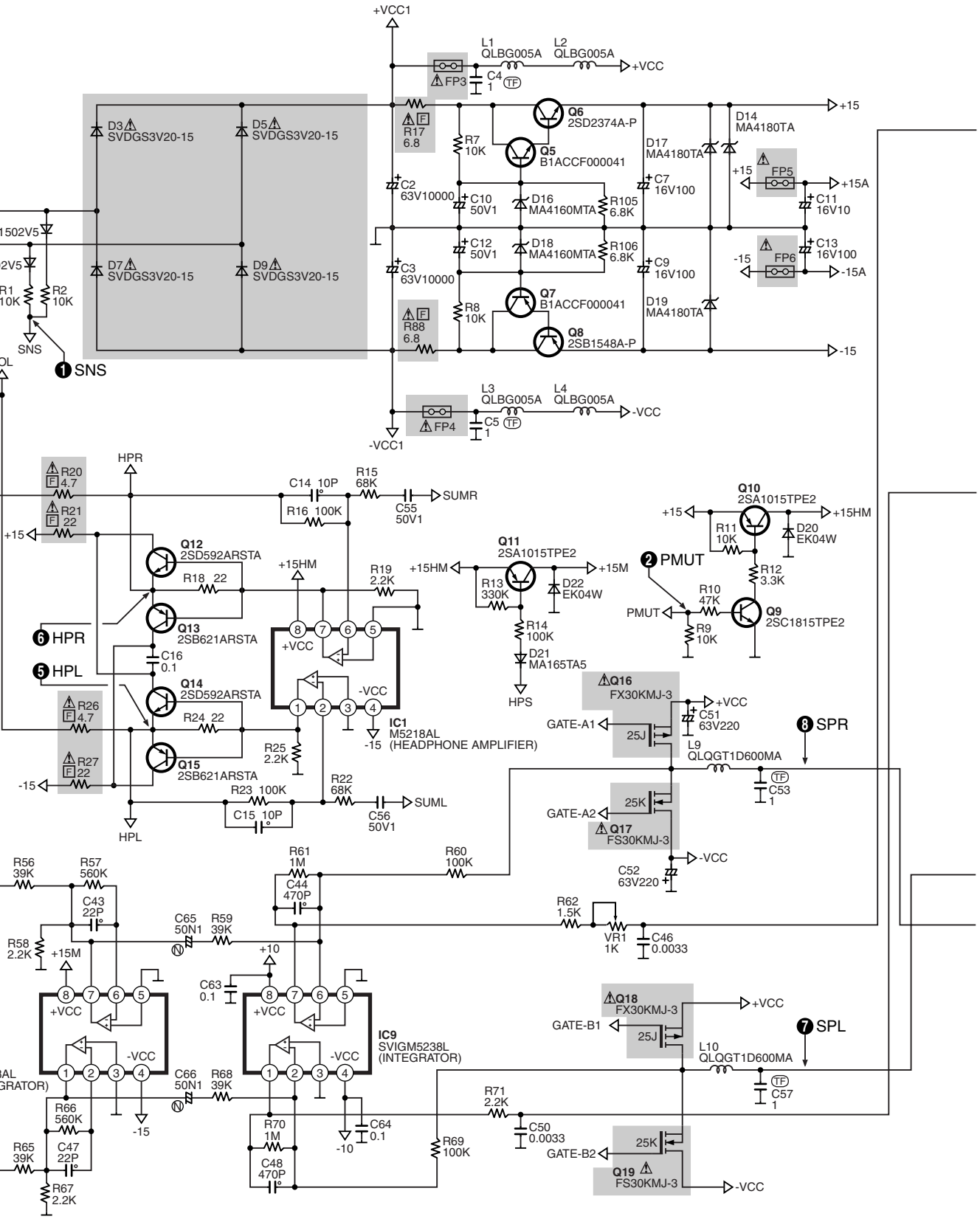
SCHEMATIC DIAGRAM-9



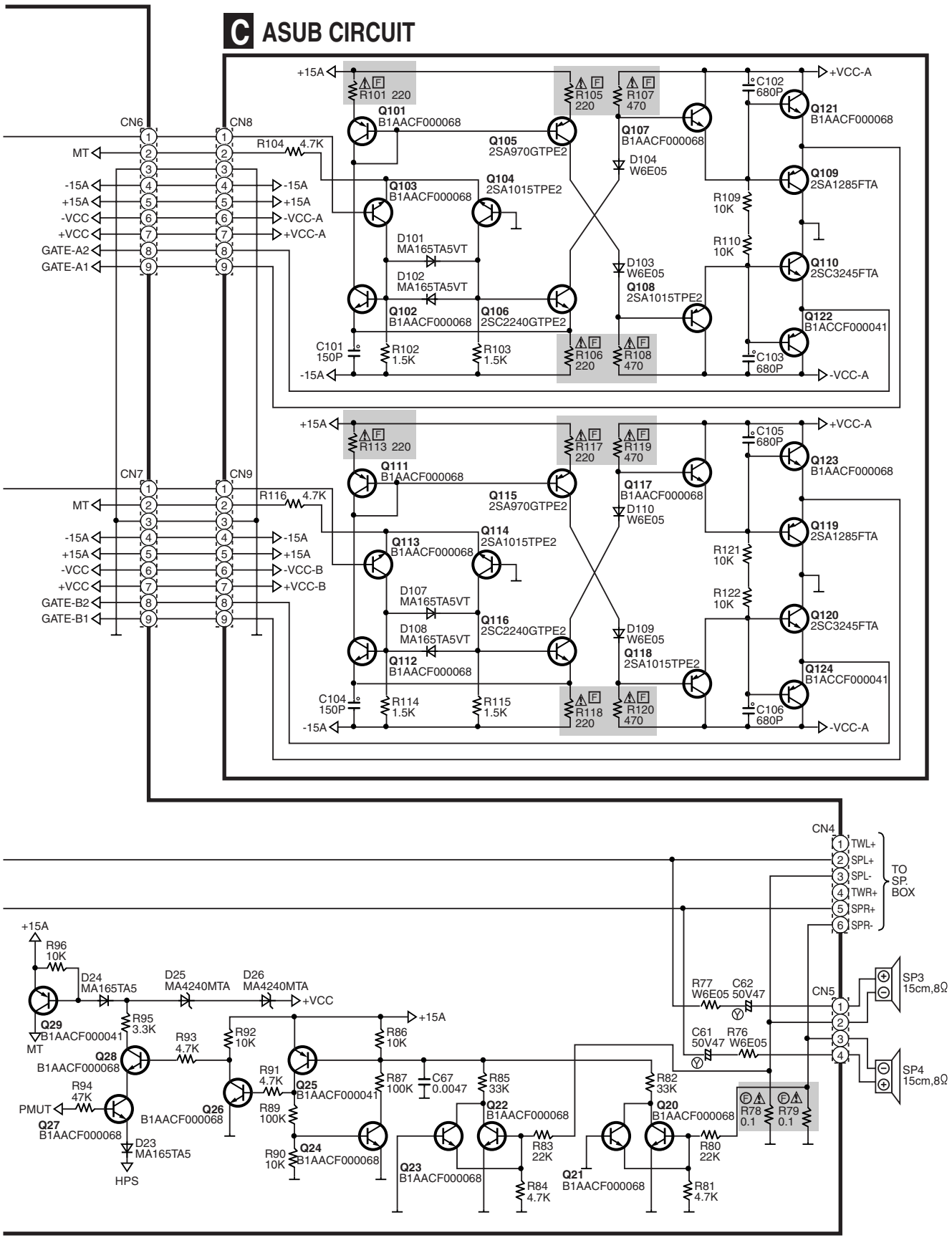

IC49
C2BBGE000618
(USB CPU)
IC51
M5218AFP
IC57
TC7WU04F
IC57
LEM2520T82NJ
IC46
TC7W00F
IC2
TC7WH74FU
USBMTX
MIDI.RX
USB.WAITM
USB.WAITH
USB.SI
USB.SO
USB.MSL
USB SBF
D+
D-
CPRST
24MHz
USB AD L
USB AD R
USB DA L
USB DA R
+5D
+3.3D
+15A
-15A

SCHEMATIC DIAGRAM-10

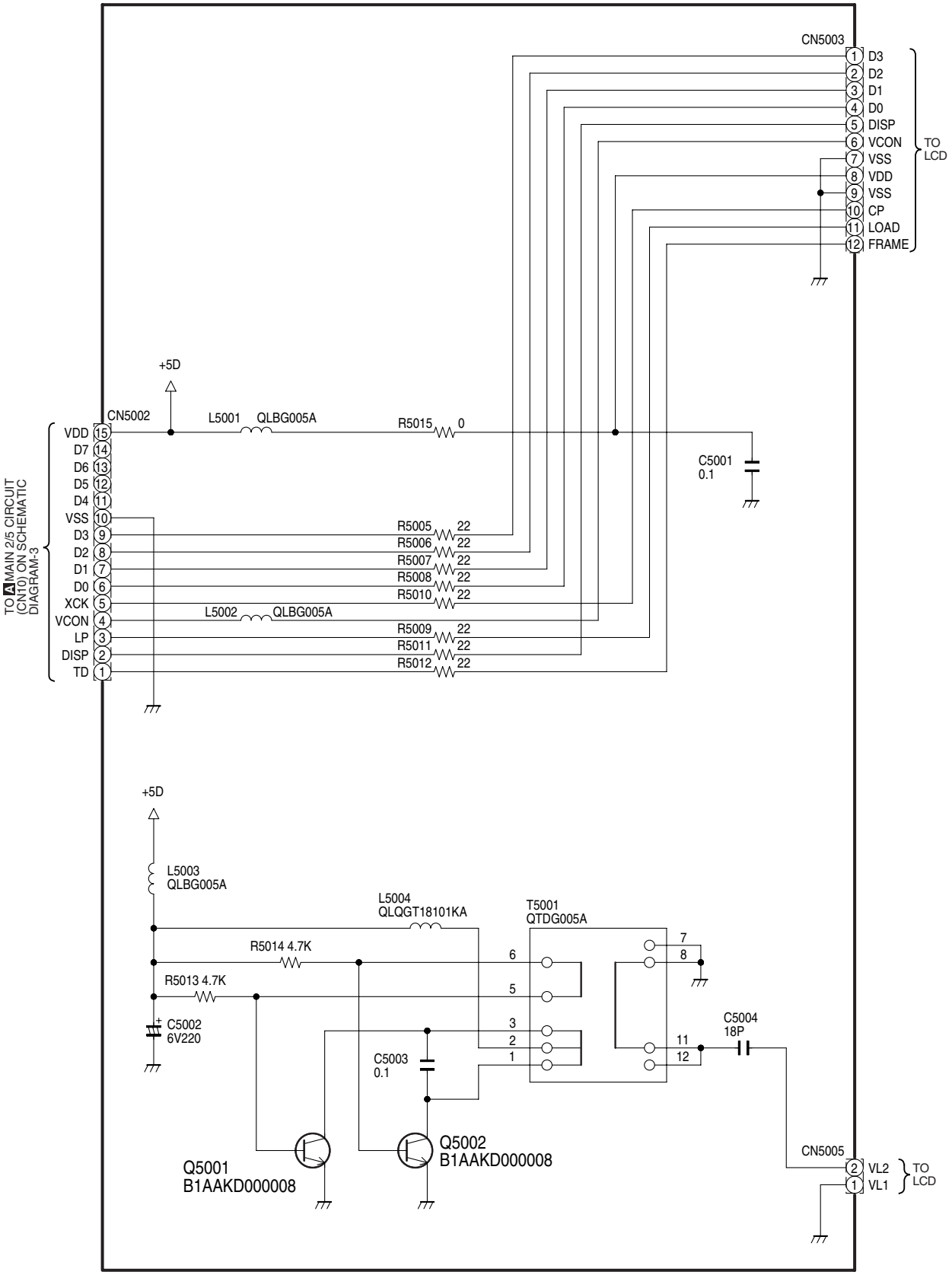



+VCC1
L1 QLBG005A
L2 QLBG005A
+VCC
FP3
C4 1
D3 SVDGS3V20-15
D5 SVDGS3V20-15
D7 SVDGS3V20-15
D9 SVDGS3V20-15
R17 6.8
R7 10K
Q6 2SD2374A-P
Q5 B1ACCF000041
D17 MA4180TA
D14 MA4180TA
+15
FP5
+15A
C2 63V10000
C10 50V1
D16 MA4160MTA
R105 6.8K
C7 16V100
C11 16V10
C12 50V1
D18 MA4160MTA
R106 6.8K
C3 63V10000
C9 16V100
C13 16V100
-15
FP6
-15A
R8 10K
Q7 B1ACCF000041
Q8 2SB1548A-P
D19 MA4180TA
R88 6.8
-15
L3 QLBG005A
L4 QLBG005A
-VCC
FP4
C5 1
-VCC1
R1 10K
R2 10K
SNS
1 SNS
HPR
R20 4.7
R21 22
C14 10P
R16 100K
R15 68K
C55 50V1
SUMR
Q12 2SD592ARSTA
R18 22
Q13 2SB621ARSTA
C16 0.1
6 HPR
5 HPL
Q14 2SD592ARSTA
R24 22
R26 4.7
R27 22
Q15 2SB621ARSTA
R25 2.2K
R23 100K
C15 10P
R22 68K
C56 50V1
SUML
HPL
+15HM
R19 2.2K
IC1
M5218AL
(HEADPHONE AMPLIFIER)
Q11 2SA1015TPE2
R13 330K
D22 EK04W
R14 100K
D21 MA165TA5
HPS
Q10 2SA1015TPE2
R11 10K
D20 EK04W
2 PMUT
R12 3.3K
R10 47K
R9 10K
Q9 2SC1815TPE2
Q16 FX30KMJ-3
GATE-A1
25J
C51 63V220
L9 QLQGT1D600MA
C53 1
8 SPR
25K
GATE-A2
Q17 FS30KMJ-3
C52 63V220
R56 39K
R57 560K
C43 22P
R58 2.2K
C65 50N1
R59 39K
R61 1M
C44 470P
R60 100K
R62 1.5K
VR1 1K
C46 0.0033
+10
C63 0.1
IC9
SVIGM5238L
(INTEGRATOR)
C66 50N1
R68 39K
R66 560K
C47 22P
R65 39K
R67 2.2K
R70 1M
C48 470P
C64 0.1
-10
R69 100K
R71 2.2K
C50 0.0033
Q18 FX30KMJ-3
GATE-B1
7 SPL
L10 QLQGT1D600MA
C57 1
GATE-B2
Q19 FS30KMJ-3

SCHEMATIC DIAGRAM-11

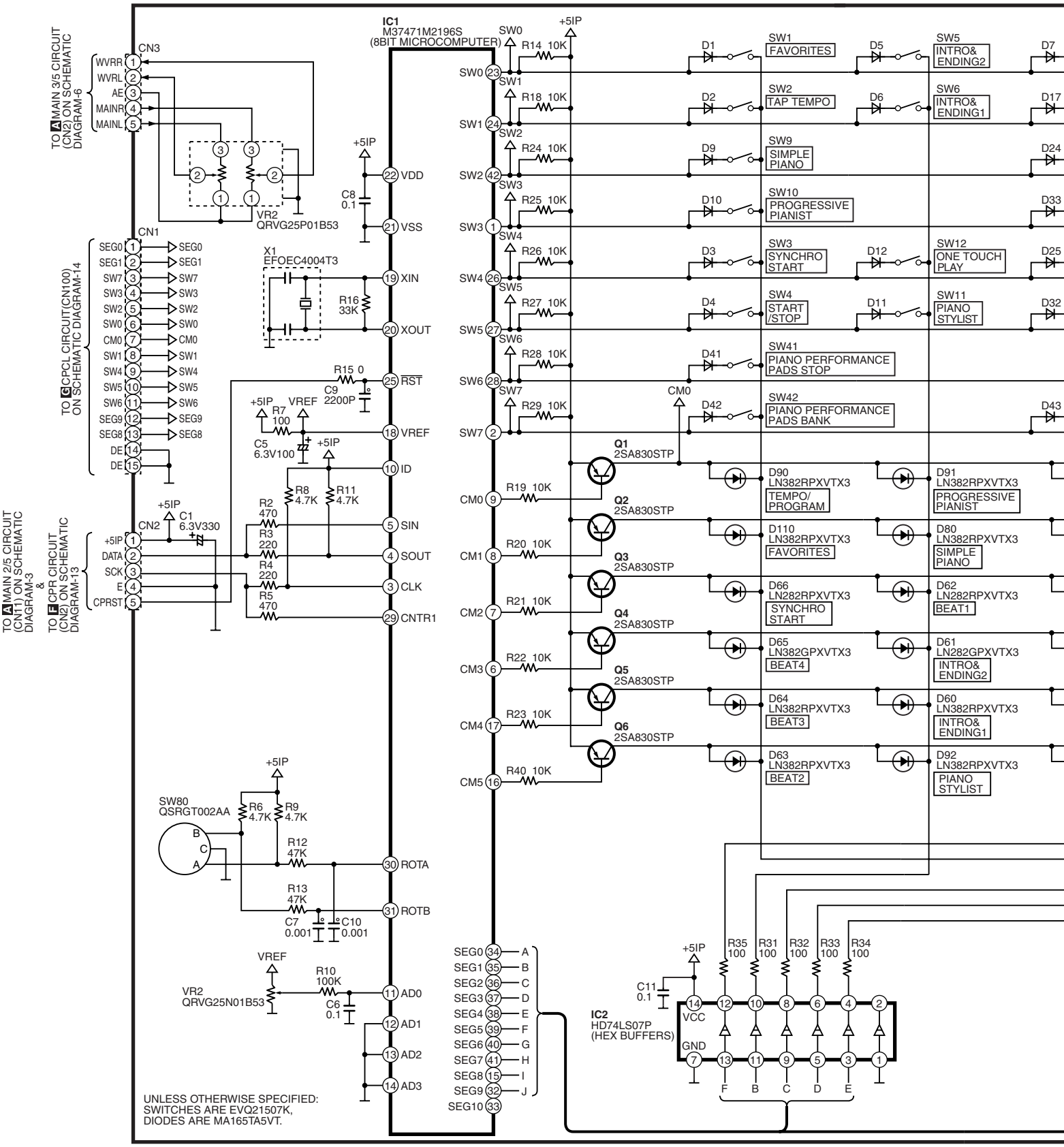


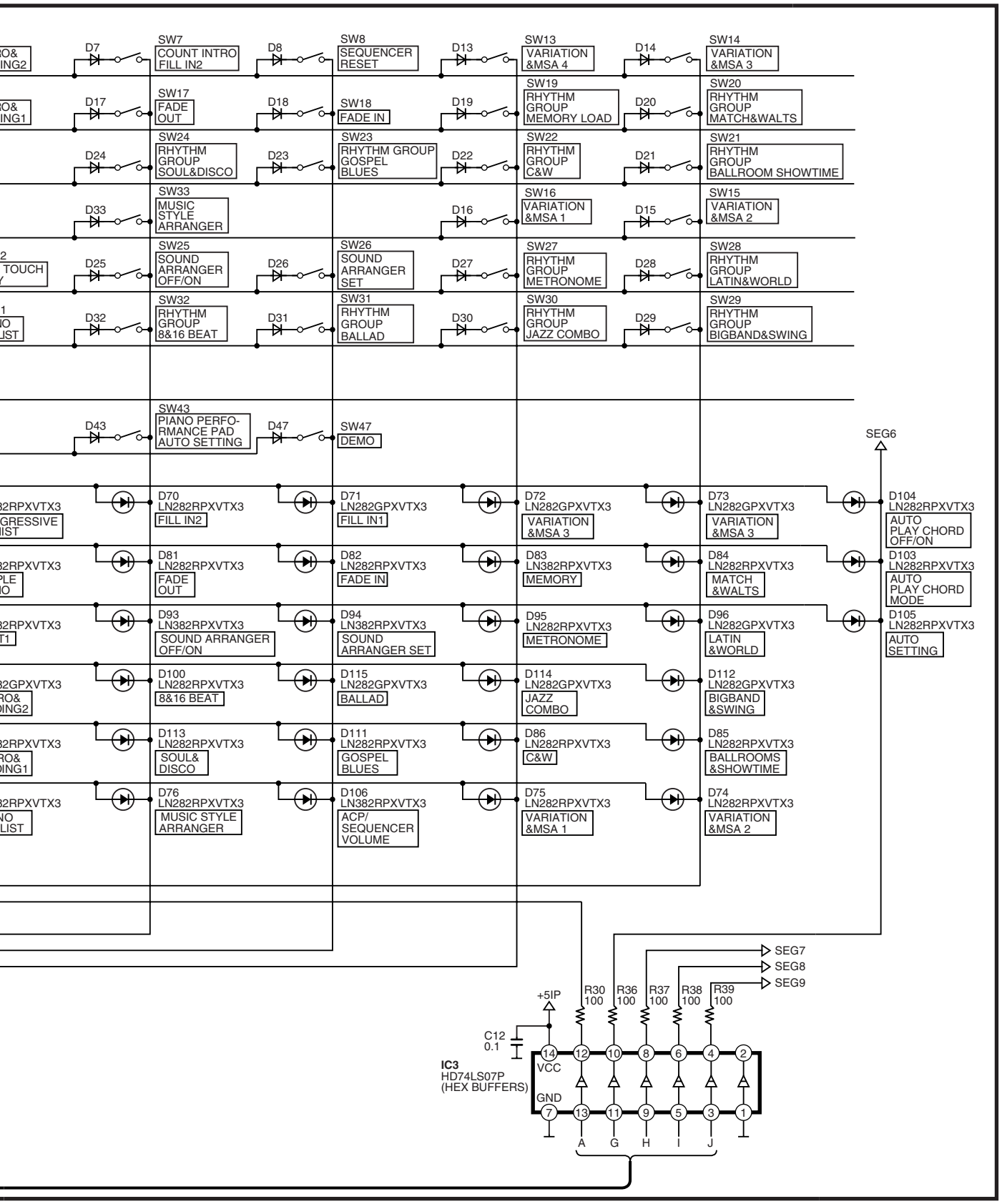
D INV CIRCUIT



SCHEMATIC DIAGRAM-12

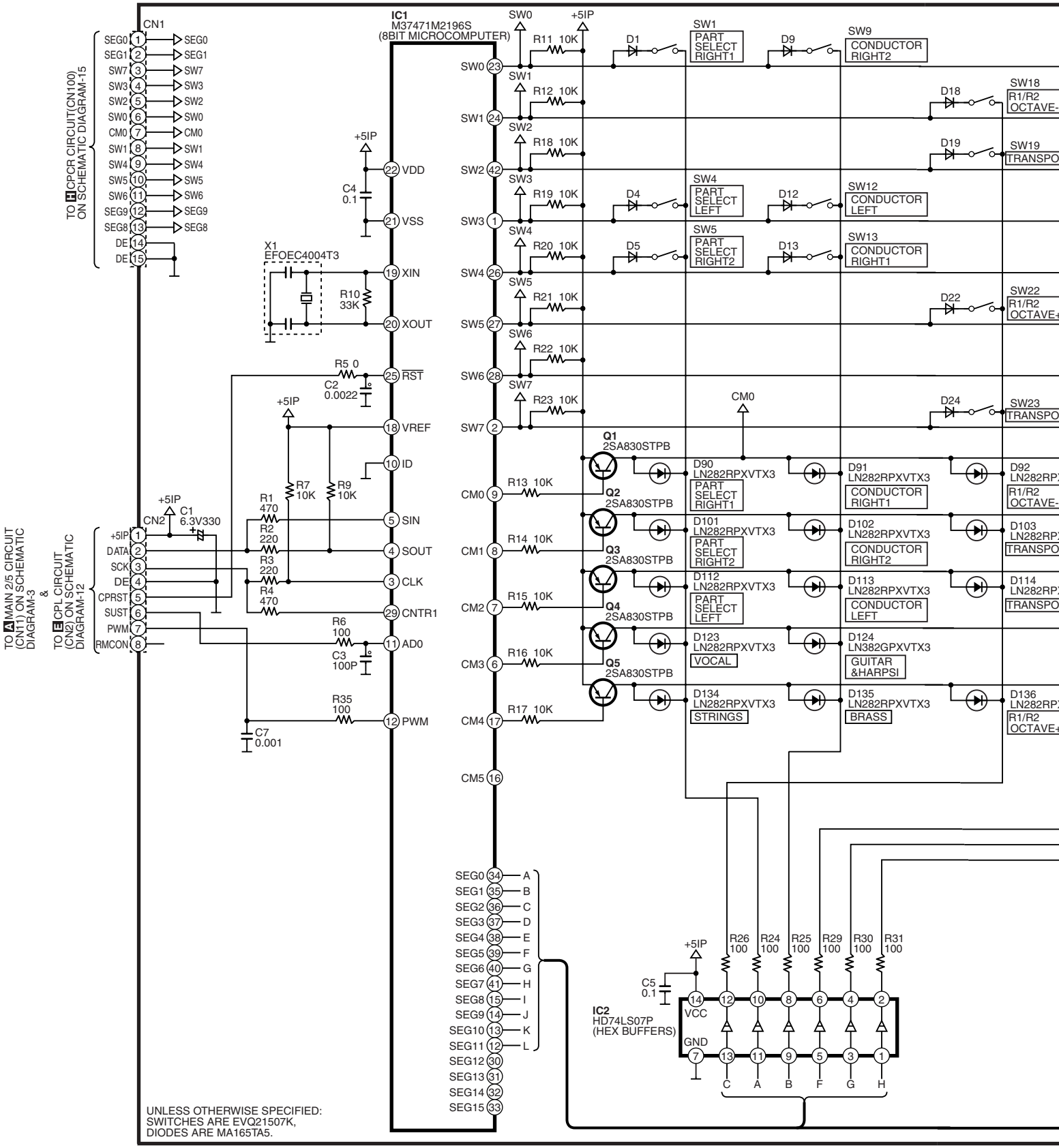
E CPL CIRCUIT

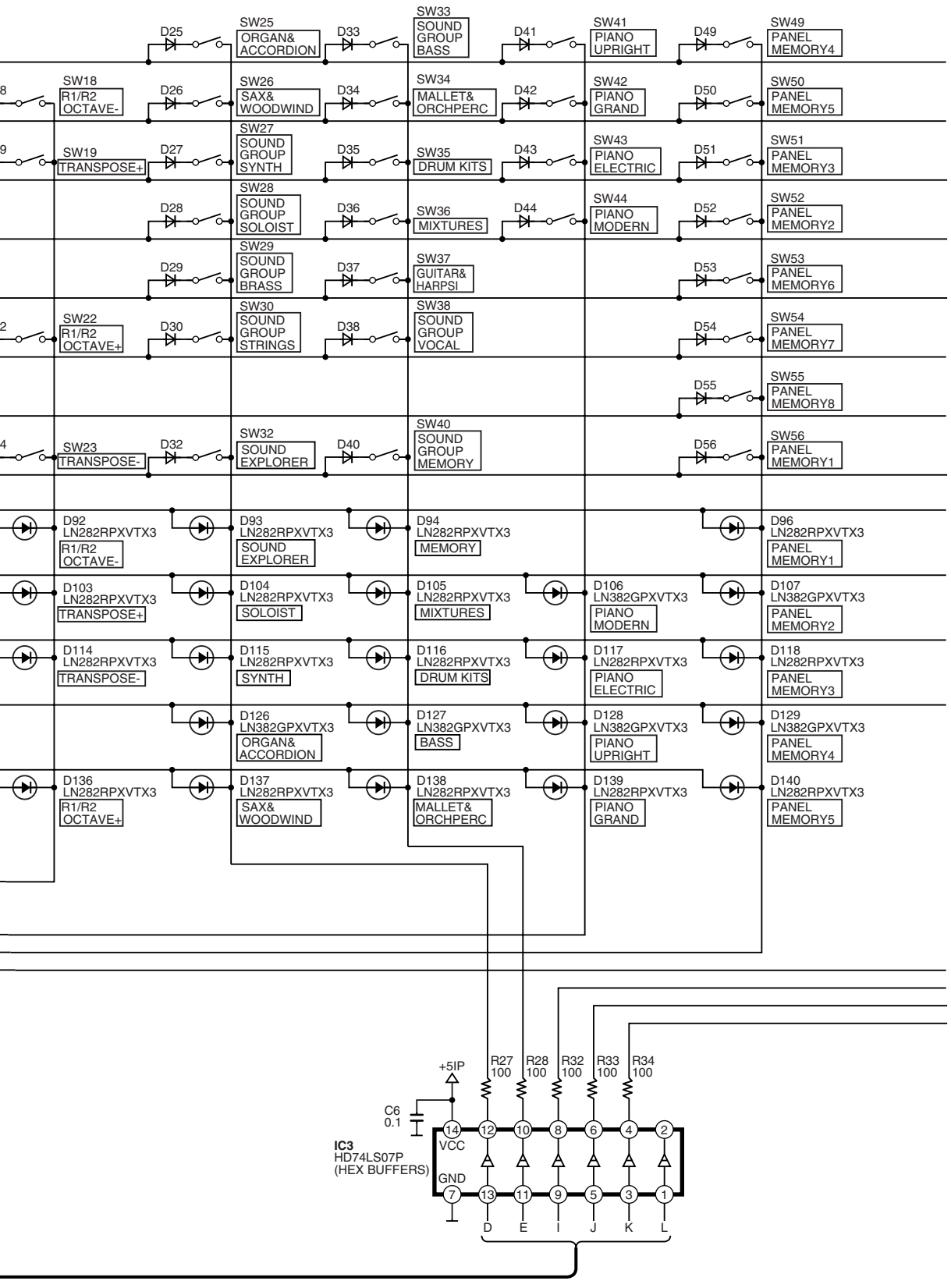



SW7
COUNT INTRO
FILL IN2
SW8
SEQUENCER
RESET
SW13
VARIATION
&MSA 4
SW14
VARIATION
&MSA 3
SW17
FADE
OUT
SW18
FADE IN
SW19
RHYTHM
GROUP
MEMORY LOAD
SW20
RHYTHM
GROUP
MATCH&WALTS
SW24
RHYTHM
GROUP
SOUL&DISCO
SW23
RHYTHM GROUP
GOSPEL
BLUES
SW22
RHYTHM
GROUP
C&W
SW21
RHYTHM
GROUP
BALLROOM SHOWTIME
SW33
MUSIC
STYLE
ARRANGER
SW16
VARIATION
&MSA 1
SW15
VARIATION
&MSA 2
SW25
SOUND
ARRANGER
OFF/ON
SW26
SOUND
ARRANGER
SET
SW27
RHYTHM
GROUP
METRONOME
SW28
RHYTHM
GROUP
LATIN&WORLD
SW32
RHYTHM
GROUP
8&16 BEAT
SW31
RHYTHM
GROUP
BALLAD
SW30
RHYTHM
GROUP
JAZZ COMBO
SW29
RHYTHM
GROUP
BIGBAND&SWING
SW43
PIANO PERFO-
RMANCE PAD
AUTO SETTING
SW47
DEMO
SEG6
D70
LN282RPXVTX3
FILL IN2
D71
LN282GPXVTX3
FILL IN1
D72
LN282GPXVTX3
VARIATION
&MSA 3
D73
LN282GPXVTX3
VARIATION
&MSA 3
D104
LN282RPXVTX3
AUTO
PLAY CHORD
OFF/ON
D81
LN282RPXVTX3
FADE
OUT
D82
LN282RPXVTX3
FADE IN
D83
LN382RPXVTX3
MEMORY
D84
LN282RPXVTX3
MATCH
&WALTS
D103
LN282RPXVTX3
AUTO
PLAY CHORD
MODE
D93
LN382RPXVTX3
SOUND ARRANGER
OFF/ON
D94
LN382RPXVTX3
SOUND
ARRANGER SET
D95
LN282RPXVTX3
METRONOME
D96
LN282GPXVTX3
LATIN
&WORLD
D105
LN282RPXVTX3
AUTO
SETTING
D100
LN282RPXVTX3
8&16 BEAT
D115
LN282GPXVTX3
BALLAD
D114
LN282GPXVTX3
JAZZ
COMBO
D112
LN282GPXVTX3
BIGBAND
&SWING
D113
LN282RPXVTX3
SOUL&
DISCO
D111
LN282RPXVTX3
GOSPEL
BLUES
D86
LN282RPXVTX3
C&W
D85
LN282RPXVTX3
BALLROOMS
&SHOWTIME
D76
LN282RPXVTX3
MUSIC STYLE
ARRANGER
D106
LN382RPXVTX3
ACP/
SEQUENCER
VOLUME
D75
LN282RPXVTX3
VARIATION
&MSA 1
D74
LN282RPXVTX3
VARIATION
&MSA 2
SEG7
SEG8
SEG9
+5IP
R30
100
R36
100
R37
100
R38
100
R39
100
C12
0.1
IC3
HD74LS07P
(HEX BUFFERS)
VCC
GND
A
G
H
I
J

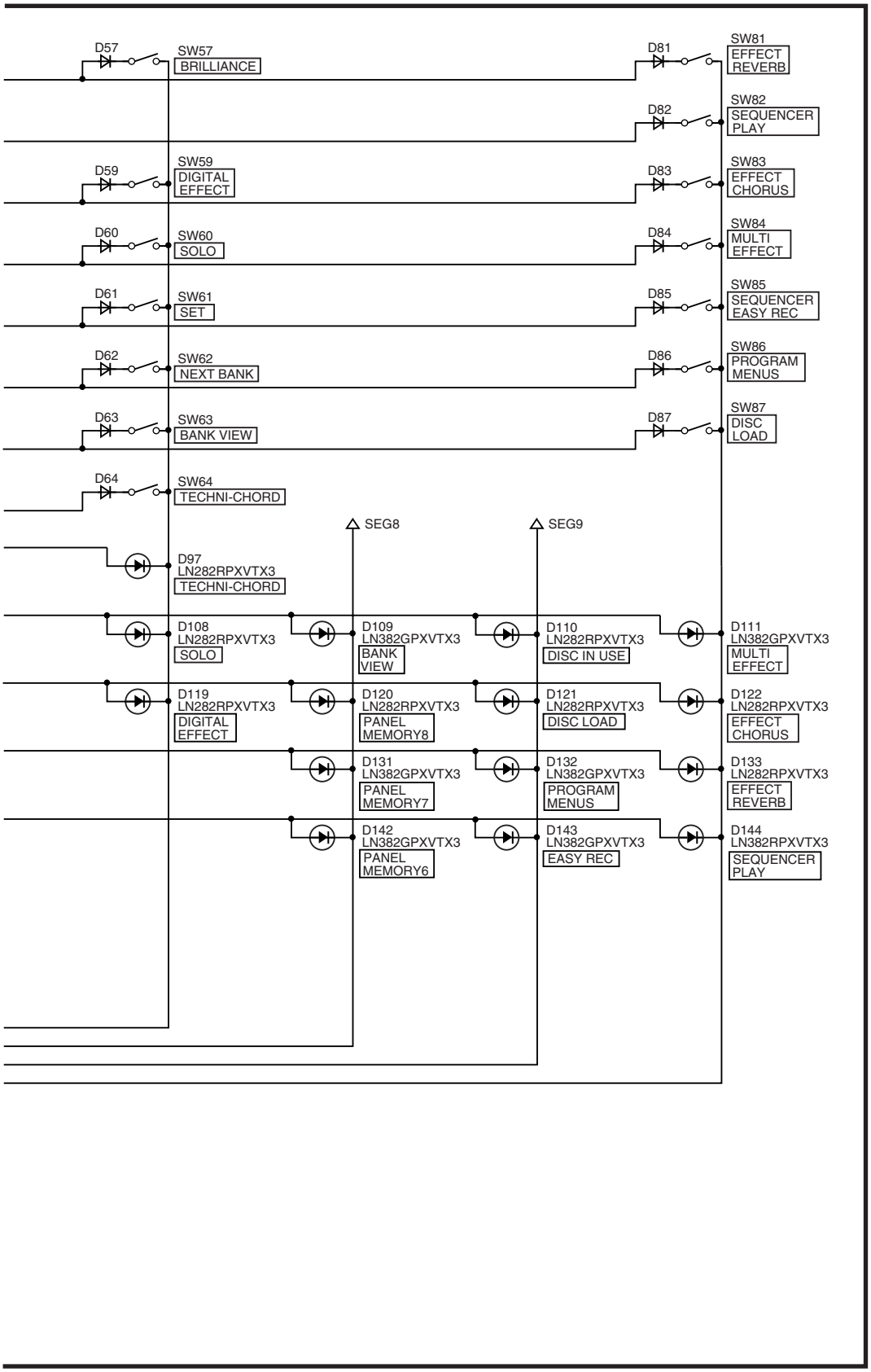
SCHEMATIC DIAGRAM-13

F CPR CIRCUIT



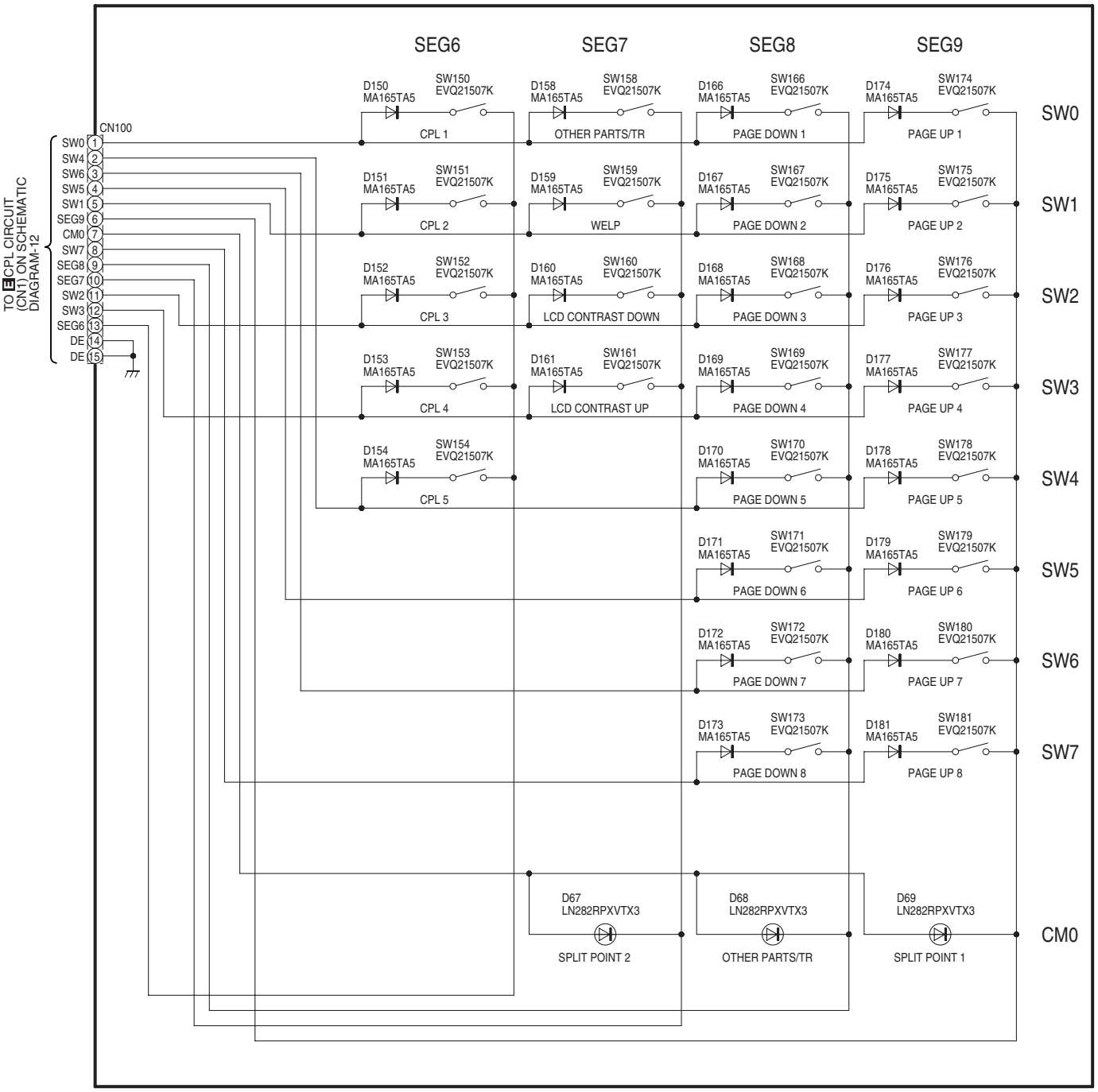

SW25 ORGAN& ACCORDION
SW33 SOUND GROUP BASS
SW41 PIANO UPRIGHT
SW49 PANEL MEMORY4
SW18 R1/R2 OCTAVE-
SW26 SAX& WOODWIND
SW34 MALLET& ORCHPERC
SW42 PIANO GRAND
SW50 PANEL MEMORY5
SW19 TRANSPOSE+
SW27 SOUND GROUP SYNTH
SW35 DRUM KITS
SW43 PIANO ELECTRIC
SW51 PANEL MEMORY3
SW28 SOUND GROUP SOLOIST
SW36 MIXTURES
SW44 PIANO MODERN
SW52 PANEL MEMORY2
SW29 SOUND GROUP BRASS
SW37 GUITAR& HARPSI
SW53 PANEL MEMORY6
SW22 R1/R2 OCTAVE+
SW30 SOUND GROUP STRINGS
SW38 SOUND GROUP VOCAL
SW54 PANEL MEMORY7
SW55 PANEL MEMORY8
SW23 TRANSPOSE-
SW32 SOUND EXPLORER
SW40 SOUND GROUP MEMORY
SW56 PANEL MEMORY1
D92 LN282RPXVTX3 R1/R2 OCTAVE-
D93 LN282RPXVTX3 SOUND EXPLORER
D94 LN282RPXVTX3 MEMORY
D96 LN282RPXVTX3 PANEL MEMORY1
D103 LN282RPXVTX3 TRANSPOSE+
D104 LN282RPXVTX3 SOLOIST
D105 LN282RPXVTX3 MIXTURES
D106 LN382GPXVTX3 PIANO MODERN
D107 LN382GPXVTX3 PANEL MEMORY2
D114 LN282RPXVTX3 TRANSPOSE-
D115 LN282RPXVTX3 SYNTH
D116 LN282RPXVTX3 DRUM KITS
D117 LN282RPXVTX3 PIANO ELECTRIC
D118 LN282RPXVTX3 PANEL MEMORY3
D126 LN382GPXVTX3 ORGAN& ACCORDION
D127 LN382GPXVTX3 BASS
D128 LN382GPXVTX3 PIANO UPRIGHT
D129 LN382GPXVTX3 PANEL MEMORY4
D136 LN282RPXVTX3 R1/R2 OCTAVE+
D137 LN282RPXVTX3 SAX& WOODWIND
D138 LN282RPXVTX3 MALLET& ORCHPERC
D139 LN282RPXVTX3 PIANO GRAND
D140 LN282RPXVTX3 PANEL MEMORY5
+5IP
R27 100
R28 100
R32 100
R33 100
R34 100
C6 0.1
IC3 HD74LS07P (HEX BUFFERS)
VCC
GND
D
E
I
J
K
L

SCHEMATIC DIAGRAM-14



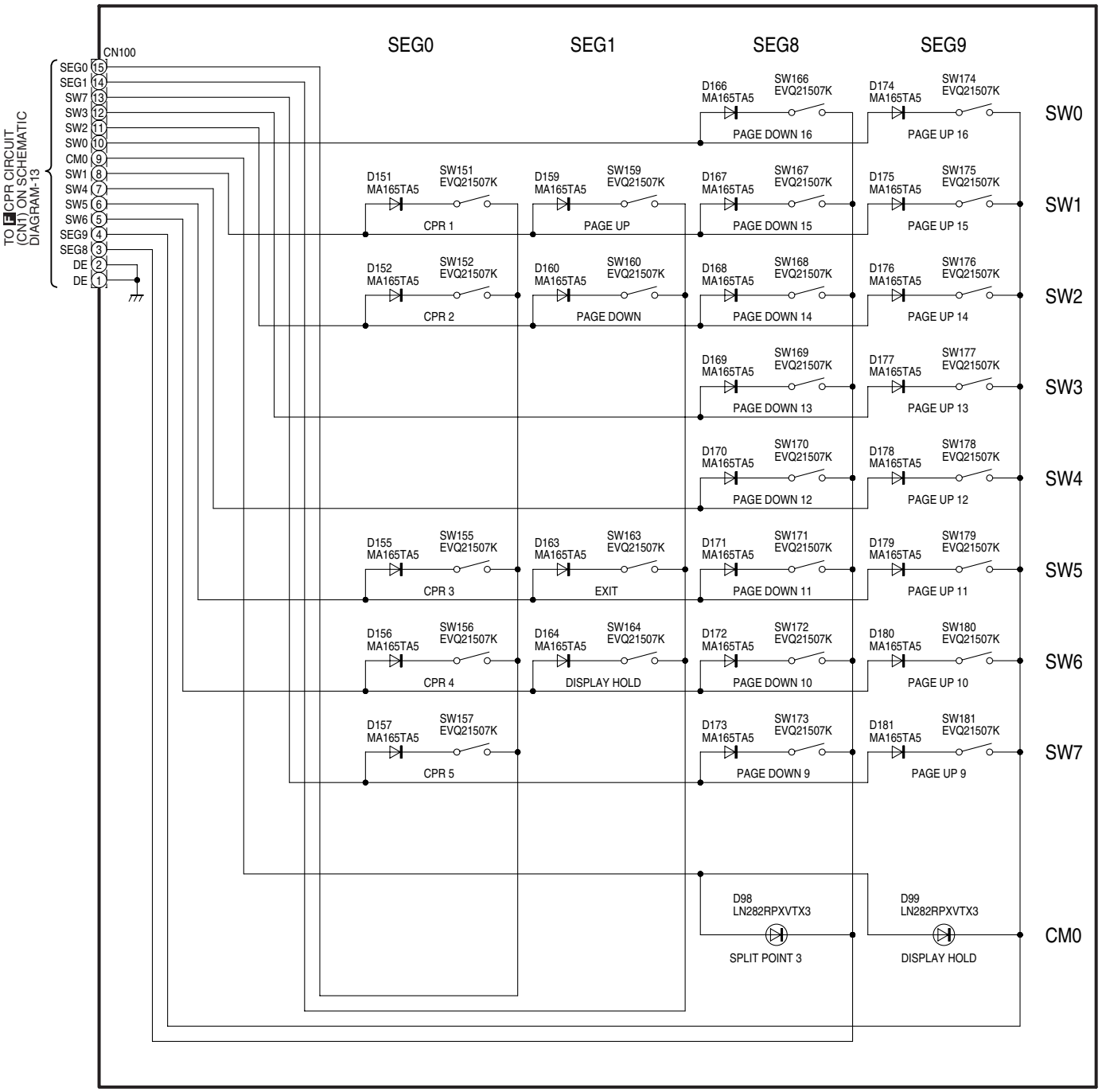
TO E CPL CIRCUIT (CN1) ON SCHEMATIC DIAGRAM-12

G CPCL CIRCUIT

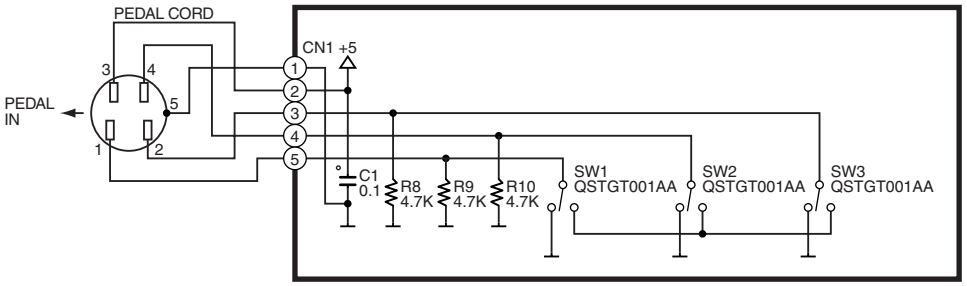


SCHEMATIC DIAGRAM-15

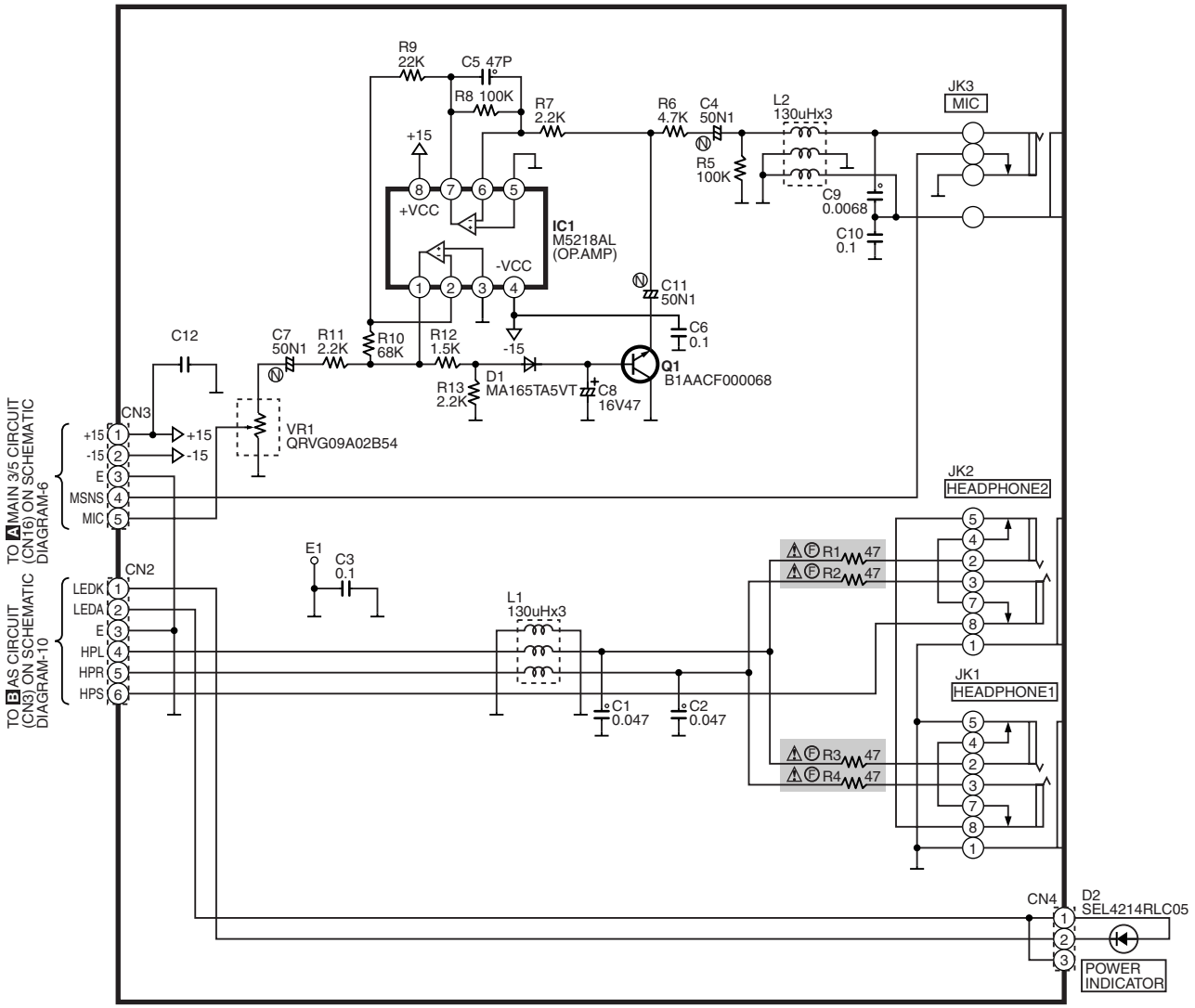
H CPCR CIRCUIT



I PKB CIRCUIT

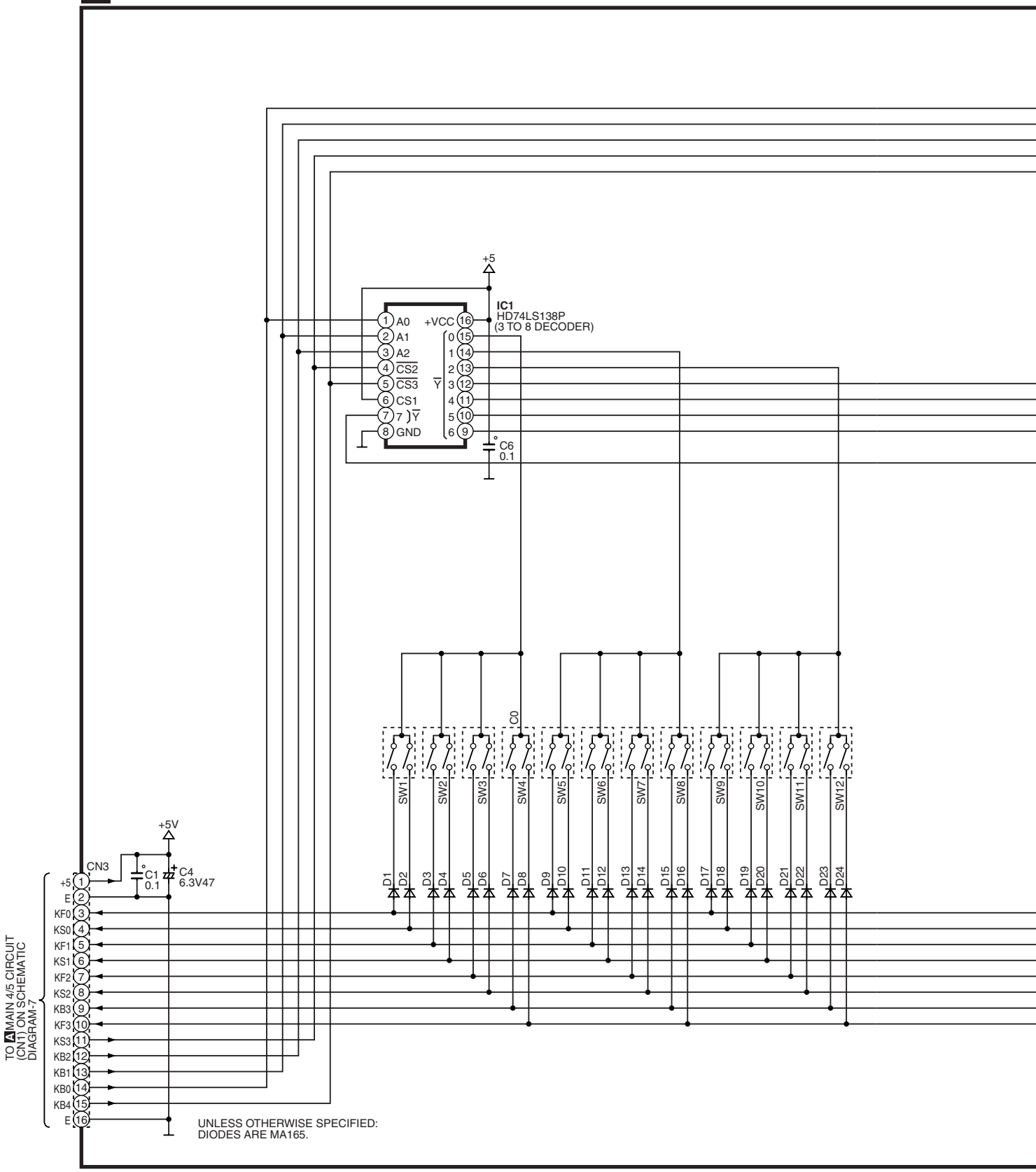


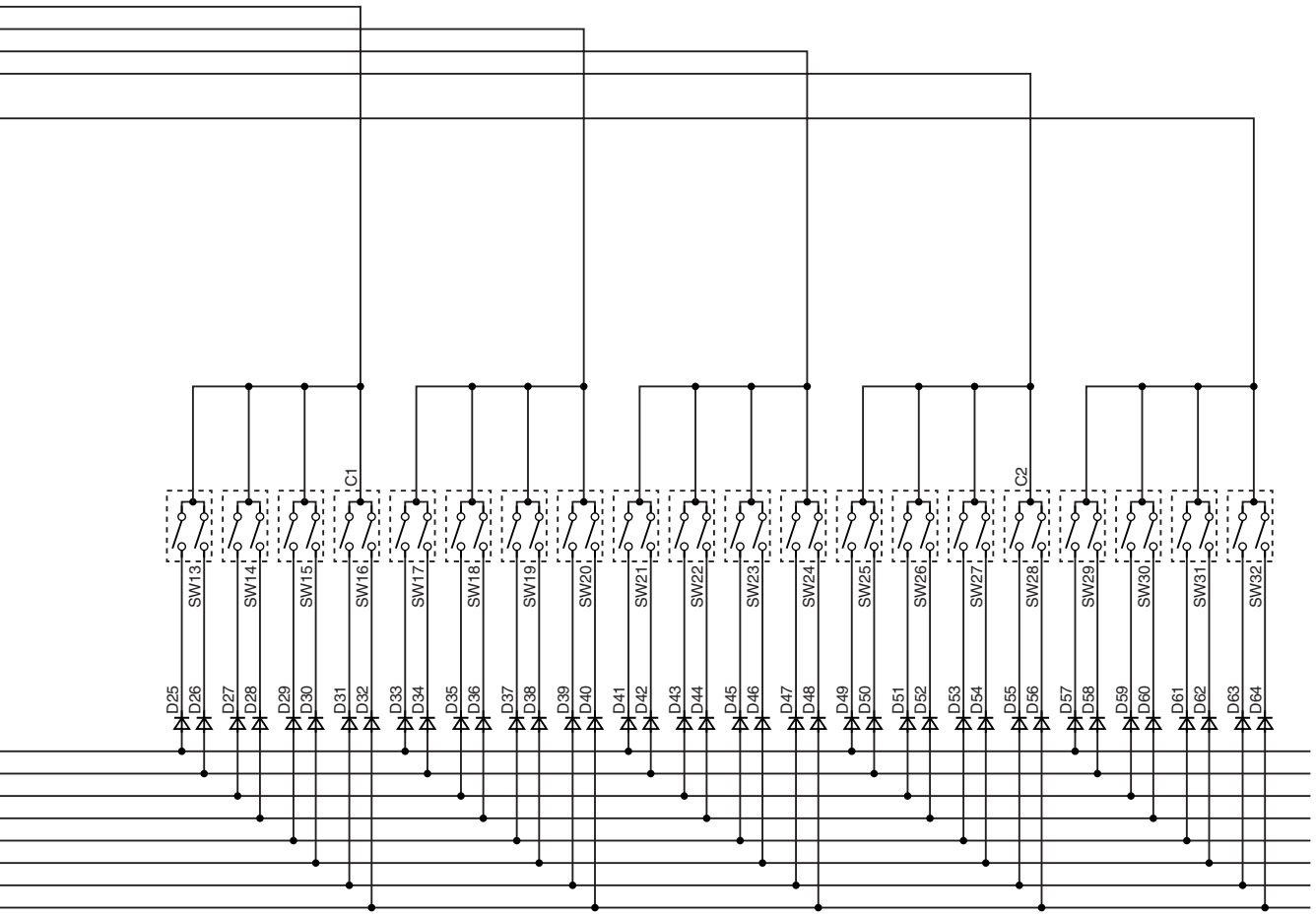
J HP/MIC CIRCUIT



SCHEMATIC DIAGRAM-16

K MKB1 CIRCUIT




C1
C2
SW13
SW14
SW15
SW16
SW17
SW18
SW19
SW20
SW21
SW22
SW23
SW24
SW25
SW26
SW27
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SW31
SW32
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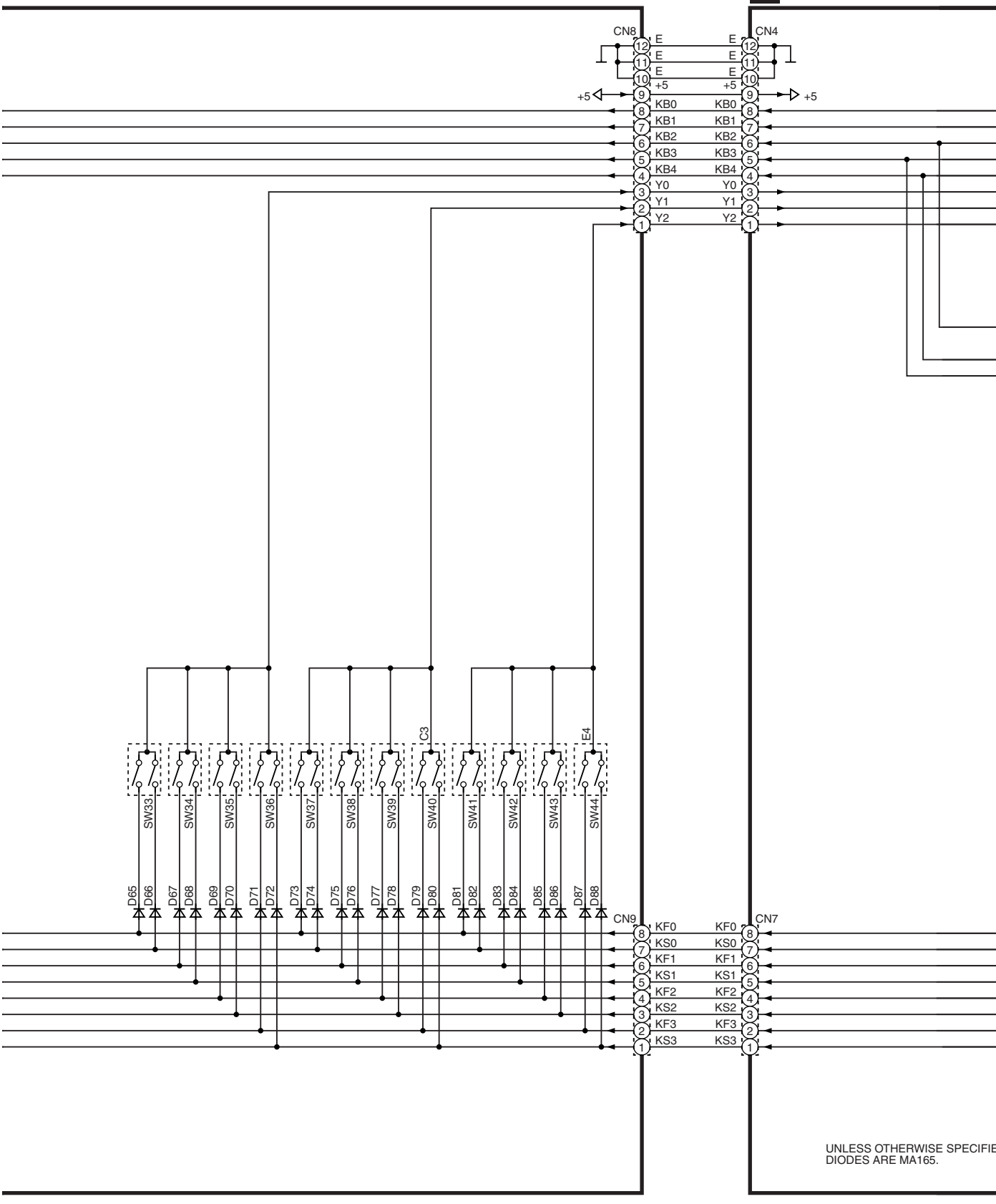
D64

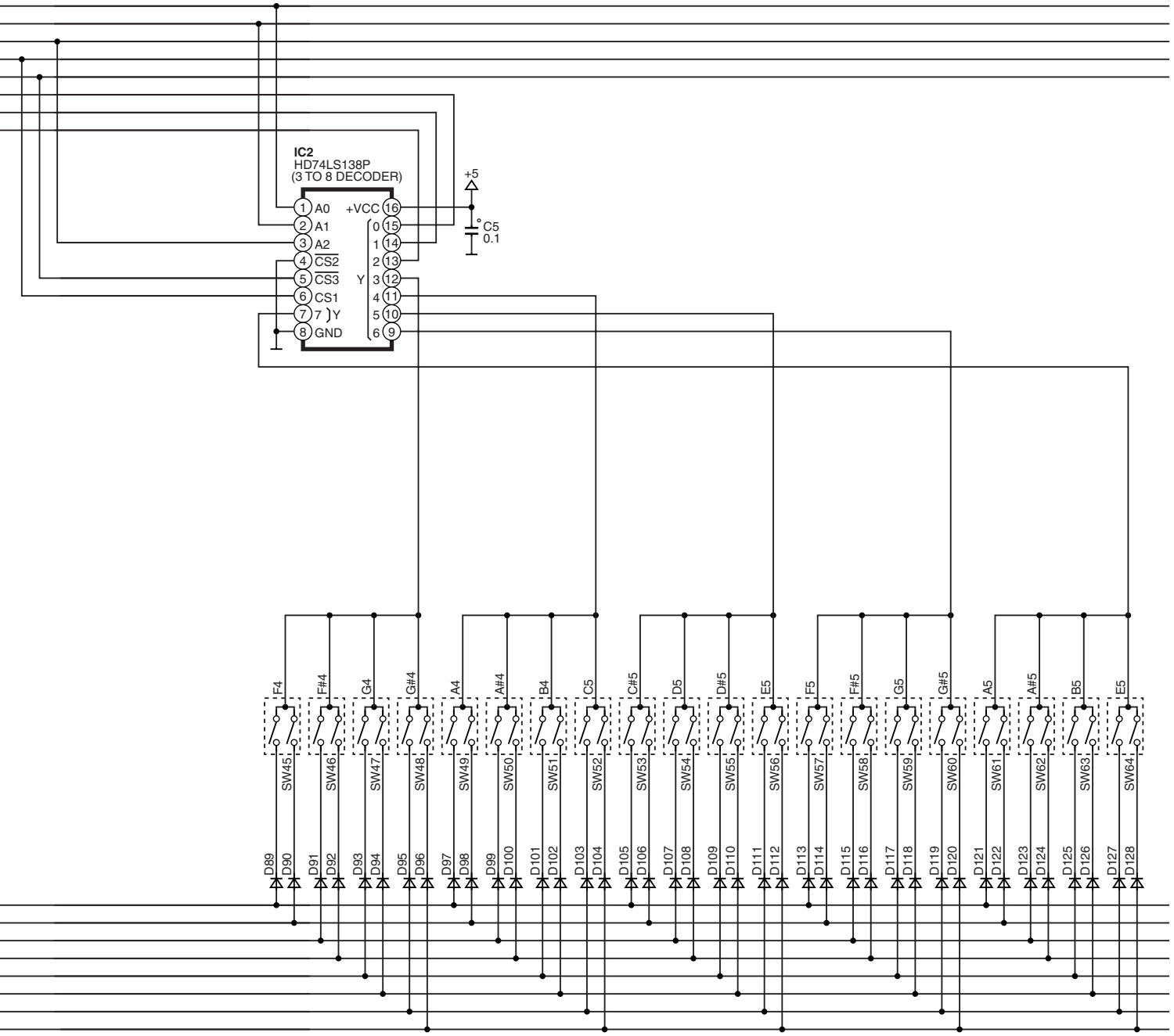
SCHEMATIC DIAGRAM-17

L MKB2 CIRCUIT



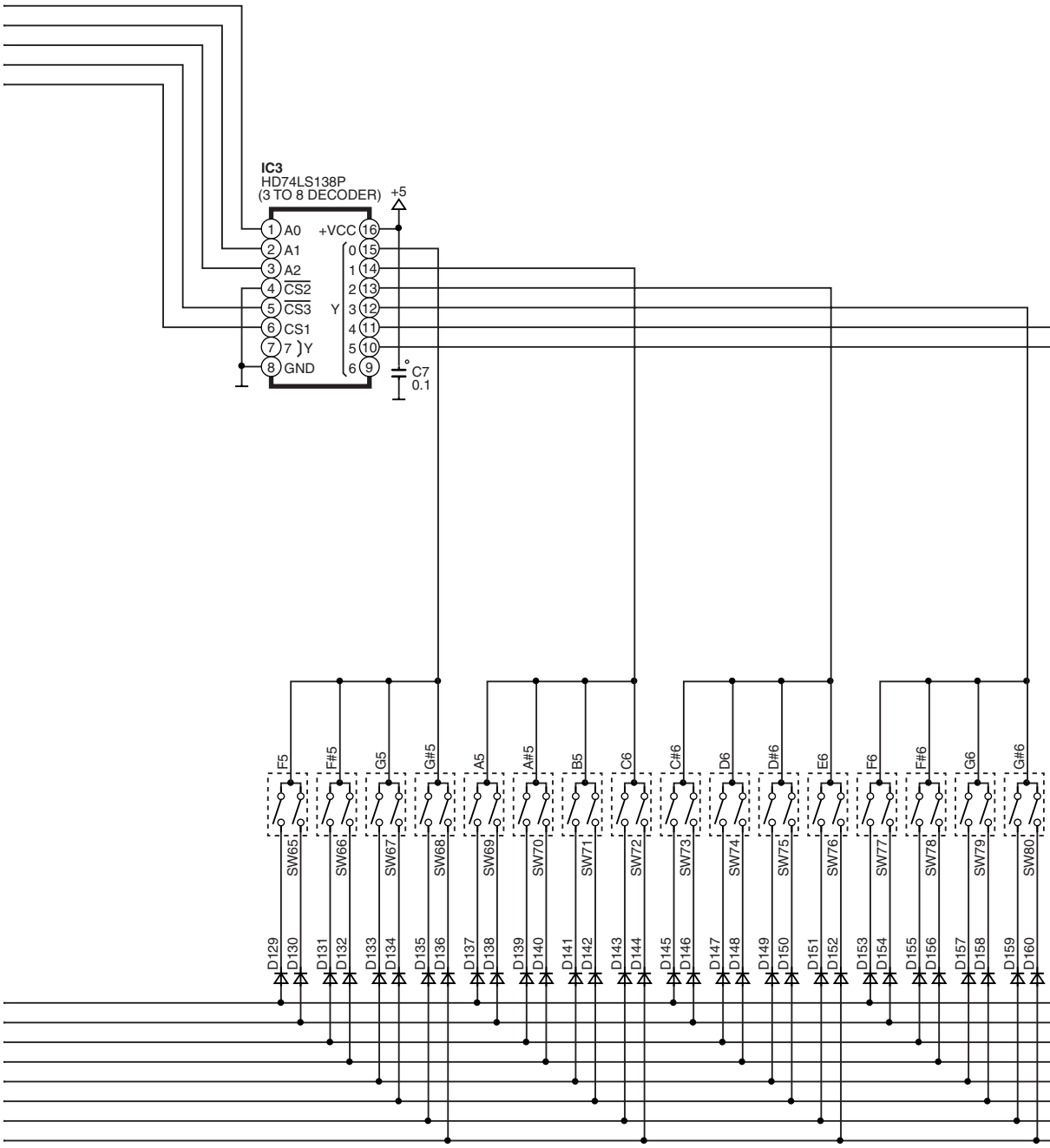
UNLESS OTHERWISE SPECIFIE
DIODES ARE MA165.

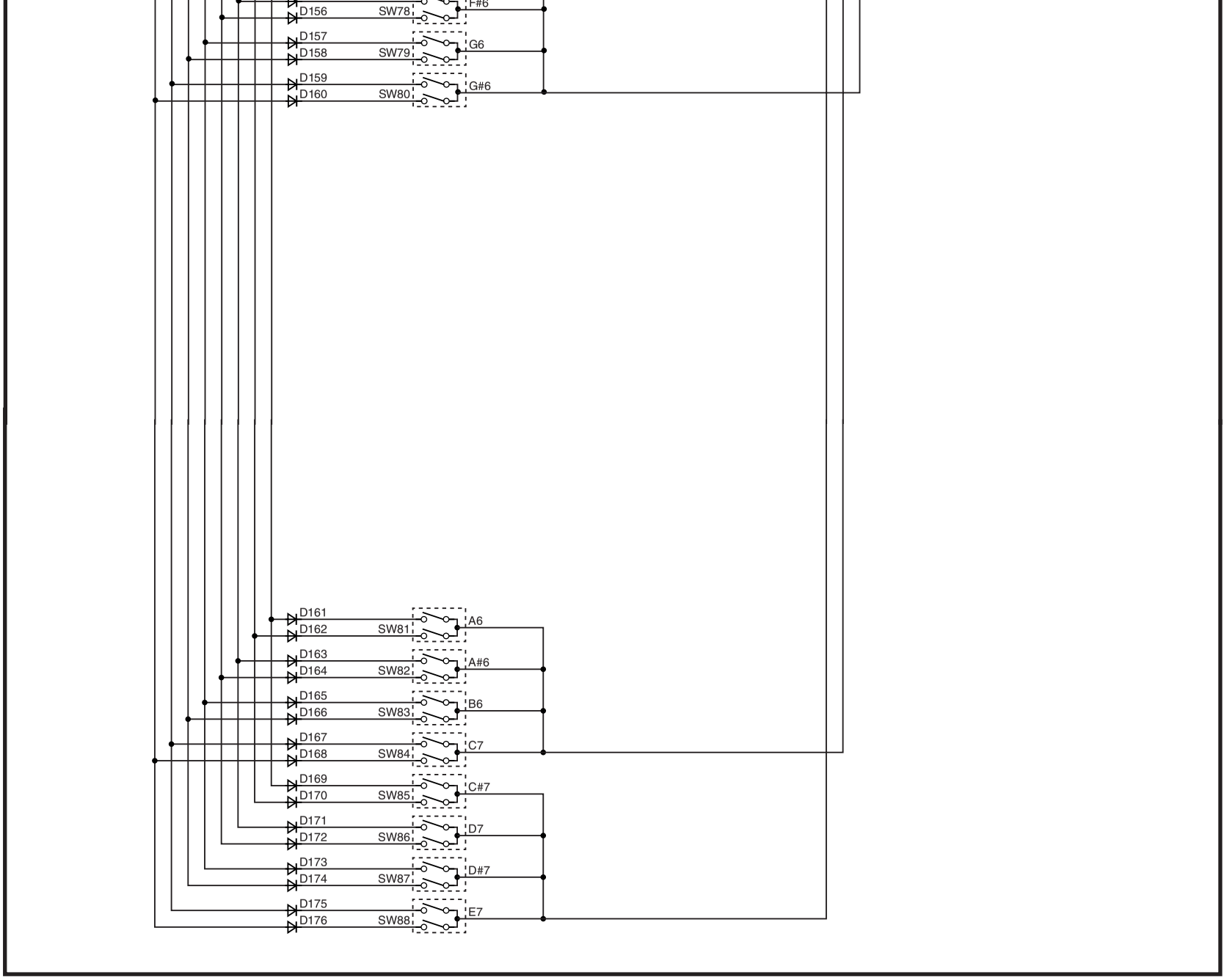
RCUIT



THERWISE SPECIFIED:
E MA165.

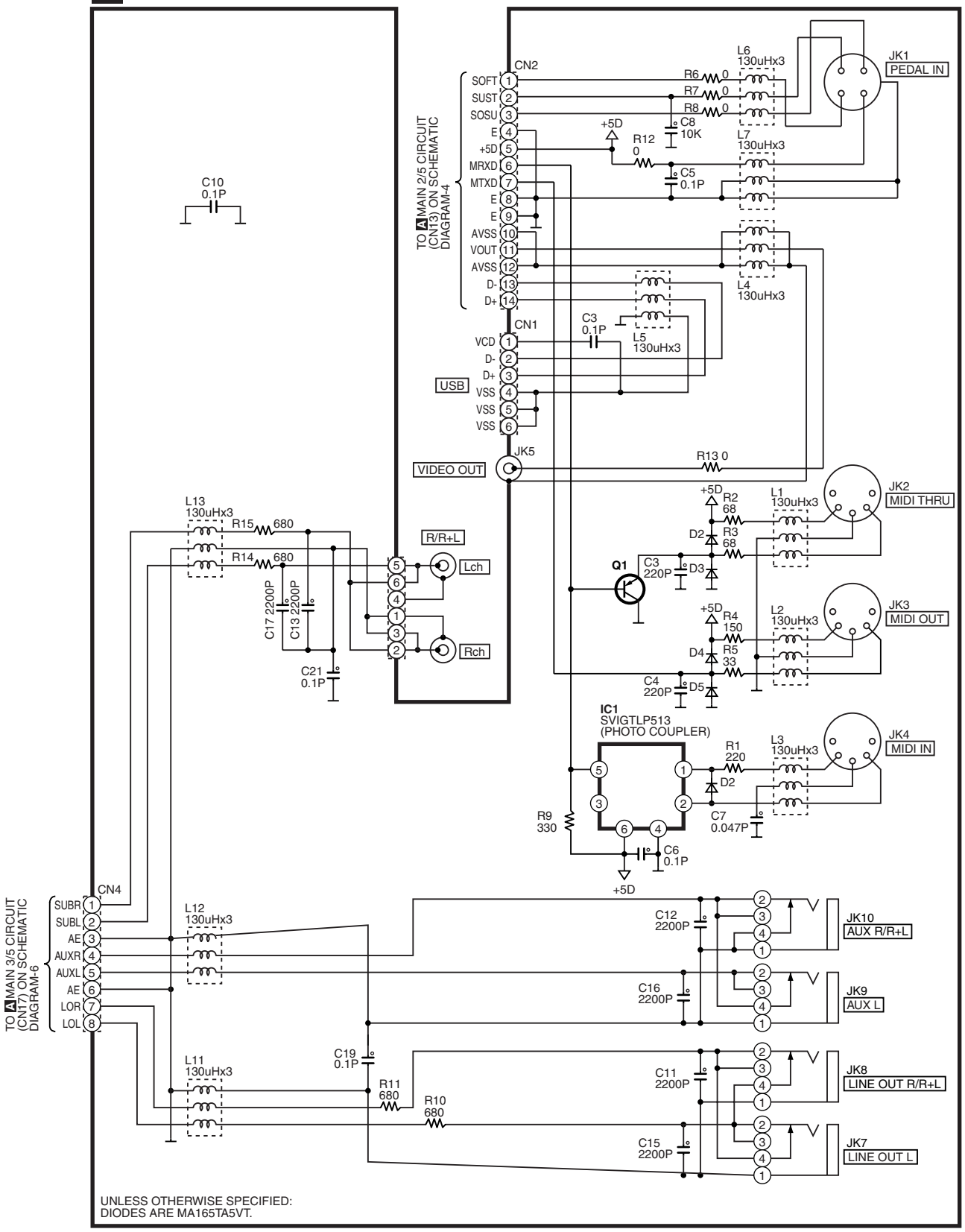
SCHEMATIC DIAGRAM-18




D156
SW78
F#6
D157
D158
SW79
G6
D159
D160
SW80
G#6
D161
D162
SW81
A6
D163
D164
SW82
A#6
D165
D166
SW83
B6
D167
D168
SW84
C7
D169
D170
SW85
C#7
D171
D172
SW86
D7
D173
D174
SW87
D#7
D175
D176
SW88
E7

SCHEMATIC DIAGRAM-19

M JACK 1/2 CIRCUIT

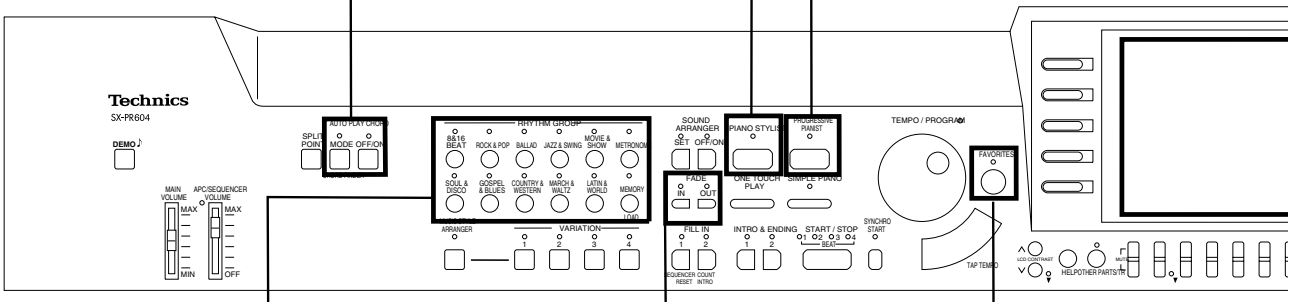


Controls and functions (PR604)

AUTO PLAY CHORD
Add an automatic accompaniment to your selected rhythm.

PIANO STYLIST
You can choose to have all the settings of this instrument automatically set.

PROGRESSIVE PIANIST
Your piano offers a fun method of learning to play piano.



RHYTHM GROUP
Various rhythm patterns are available for each rhythm group.

FADE IN/OUT
Begin your song with a slowly increasing volume, or end it by having the sound slowly fade away.

FAVORITES
Fashion a customized display in which all your favorite sounds, rhythms and styles are assembled.

■ **Tuning**
Unlike an acoustic piano, your PR Series Digital Ensemble never needs tuning.
The pitch of this instrument can be adjusted for when playing along with other instruments.

■ **About the backup memory**
The settings and memories are maintained for approximately 80 minutes after the power to this instrument is turned off. If you wish to keep the memory contents, before you turn off the instrument, use the SAVE procedure to store the desired data on a disk for recall at a later time.

- The backup memory does not function until the power has been on for about 10 minutes.
- When you quit the operating mode, a REMINDER display may appear to remind you to save the data.

DISPLAY
Displays performance information, function settings and other messages.

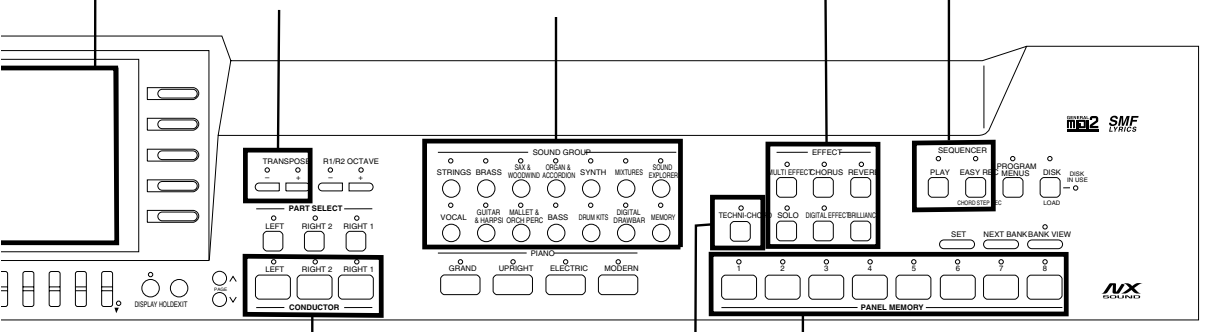
- Use the **LCD CONTRAST** buttons to adjust the display so that it is easy to read.

EFFECT
Add various effects to the sounds.

TRANSPOSE
Raise or lower the keyof the entire keyboard.

SOUND GROUP
Various sounds are available for each sound group.

SEQUENCER
Record and play back your performance.



CONDUCTOR
Assign a different sound to each part, then assign the desired parts to sections of the keyboard.

TECHNI-CHORD
Block chords are automatically added to the melody.

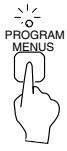
PANEL MEMORY
Store the panel settings, then recall them instantaneously just by pressing a button or two.

Initialize

This instrument has many settable functions and storable memories. However, you can return the settings and memory to the factory-preset status.

INITIAL

1. Press the **PROGRAM MENUS** button to turn it on.



- The display changes to the following.

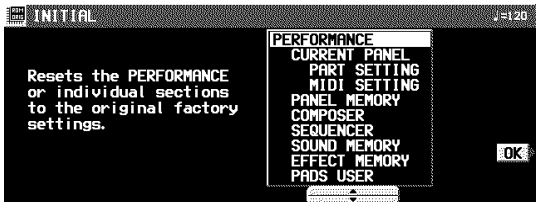
2. Select CONTROL.

(**PR804**)

- The display looks similar to the following.

3. Select INITIAL.

- This display changes to the following.



(**PR804**)

4. Use the and buttons to select the desired type of initialization.

- PERFORMANCE includes all the items which are listed below it.

5. Press the OK button.

- The display changes to the confirmation display. Press the YES button if you wish to execute the initialization. Press the NO button if you wish to cancel the procedure.

- Initialization begins. When initialization is completed, "COMPLETED!" is shown on the display and this instrument returns to the normal performance mode.
- The MIDI & FAVORITES are not initialized by this procedure.

You can also reset all the PERFORMANCE items with the following procedure:
Turn off the power to this instrument once. Then, while pressing the three lower left buttons in the **RHYTHM GROUP** section (**SOUL & DISCO**, **GOSPEL & BLUES** and **COUNTRY & WESTERN**) at the same time, turn the power on again.

Power on settings

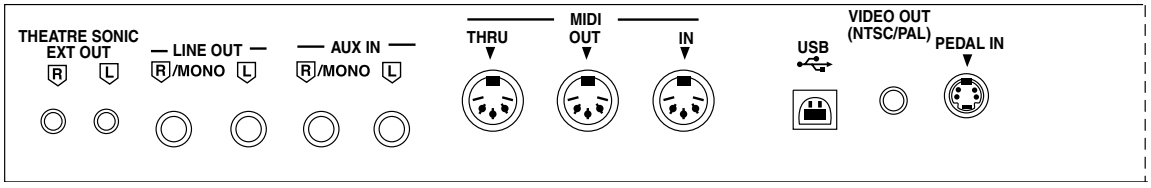
When the **POWER** button of this instrument is turned on, the settings below are automatically set to those suitable for piano performance.

Sound	**GRAND PIANO** (CONCERT)
CONDUCTOR	**RIGHT 1**
TRANSPOSE	C
R1/R2 OCTAVE	Off
SYNCHRO START	Off
AUTO PLAY CHORD	Off
All PART SETTING items for the RIGHT 1 part	Appropriate values
PEDAL SETTING	Left: SOFT Center: SOSTENUTO

- When you turn the power on, you can recall all the settings which were in effect at the time you turned the instrument off: while depressing the sustain (right) pedal, turn on the power.

Connections

(on the rear panel)



(**PR804**)

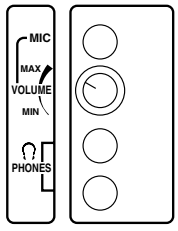
THEATRE SONIC EXT OUT (PR804)
External rear speakers for the THEATRE SONIC effect can be connected to these terminals.

AUX IN (input level 0.5 Vrms, 6 kΩ)
Other instruments such as a sound generator can be connected to this terminal, and the sound will be output from this instrument's speakers. To receive monaural sound, connect the other instrument to the **R/MONO** terminal. (Do not connect the **L** terminal.)

LINE OUT (output level 1.5 Vrms, 600 Ω)
By connecting an external high-power amplifier, the sound can be reproduced at a high volume. To output monaural sound, connect the external equipment to the **R/MONO** terminal. (Do not connect the **L** terminal.)

MIDI
These terminals are for connection to another MIDI instrument.

(beneath the left end of keyboard)



PHONES × 2
Headphones can be connected to this instrument.
- When headphones are plugged into this jack, the speakers of this instrument are disabled.

MIC
A microphone can be connected to this instrument and the sound output through the speakers. Use the **VOLUME** control to adjust the volume.
- Effects such as reverb can be applied to the microphone input.

USB
This terminal allows connection to a personal computer with a USB cable (commercially available type AB cable).
Used with the applications on the included CD-ROM, you can record this instrument's audio sound or manage the instrument data with your PC.
- **Applications**
  Audio Recorder:
  Application for Recording this instrument's sounds and for saving recorded digital audio files in WAV, WMA (Windows Audio Format) and MP3 formats.
  Song Manager:
  Application for managing this instrument's data on your PC by means of a USB cable.

VIDEO OUT (**PR804**)
The display images or lyrics when playing songs, and the image of the normal display are output through this terminal.
- The output mode (**NTSC/PAL**) can be selected.

Symptoms which appear to be signs of trouble

The following changes in performance may occur in the Technics Keyboard but do not indicate trouble.

	Phenomenon	Remedy
Sounds and effects	The buttons, keys, etc. malfunction.	▪ Turn off the **POWER** button once, then turn it on again. If this procedure is not successful, turn off the **POWER** button once. Then, while pressing the three lower left buttons in the **RHYTHM GROUP** section (**SOUL & DISCO**, **GOSPEL & BLUES**, **COUNTRY & WESTERN**) at the same time, turn the **POWER** button on again. (Note that, in this case, all programmable settings, functions and memories return to their factory-preset status.)
	No sound is produced when the keys are pressed.	▪ The **MAIN VOLUME** is at the minimum setting. Adjust the volume with the **MAIN VOLUME** control. ▪ The volumes for the selected parts are set to the minimum levels. Use the balance buttons to set the volumes of the relevant parts to appropriate levels. ▪ The part is muted. ▪ The LOCAL CONTROL for a part performed on the keyboard is set to OFF. Set the LOCAL CONTROL to ON.
	Only percussive instrument sounds are produced when the keyboard is played.	▪ In the **SOUND GROUP** section, the **DRUM KITS** button is on.
	The volume is very low when the keyboard is played.	▪ The volume setting in the **SEQUENCER** contents is very low. Follow the INITIAL procedure to reset the settings.
	The sound you hear is different from the sound you selected.	▪ This sometimes occurs when you play back **SEQUENCER** or **COMPOSER** data which was created on a different model, or when MIDI data is received from a connected instrument. Select the desired sounds again.
	The sustain does not work even when the sustain pedal is depressed.	▪ The sustain pedal is not connected. Connect the pedal cord firmly to the **PEDAL IN** terminal on the back of the instrument.
	The sostenuto pedal and soft pedal do not operate properly. For example, when the soft pedal is depressed, the rhythm starts or a fill-in is played.	▪ Different functions can be programmed in these pedals. You can return the pedals to their original functions by turning off the instrument once, or by using the PEDAL SETTING mode.
Rhythm	The rhythm does not start.	▪ The **DRUMS** volume is set to the minimum level. Use the balance buttons to set the **DRUMS** volume to an appropriate level. ▪ A **SEQUENCER PLAY** button is on. When you are not playing back the **SEQUENCER** performance, turn off the **SEQUENCER PLAY** button. ▪ CLOCK is set to MIDI. Set CLOCK to INTERNAL.
AUTO PLAY CHORD	No sound is produced for the automatic accompaniment, or only the sounds of some parts are produced.	▪ An **ACCOMP** part does not sound if its corresponding volume is set to the minimum level. Use the respective balance buttons to set the **ACCOMP 1**–**5** volumes to appropriate levels.
SEQUENCER	Storage is not possible.	▪ The remaining memory capacity of the **SEQUENCER** is 0. Follow the SONG CLEAR or TRACK CLEAR procedure to erase the memory.
	The playback measure indication is different from when the performance was recorded.	▪ The number of measures corresponds to the time signature of the rhythm selected at the start of recording. To change the rhythm in the middle of the song, record the rhythm change in the RHYTHM part.

	Phenomenon	Remedy
COMPOSER	Storage is not possible.	▪ The remaining memory capacity of the **COMPOSER** is 0.
	Setting the time signature and number of measures is not possible.	▪ The time signature and number of measures cannot be changed for a pattern which is currently recorded in the **COMPOSER**. If you wish to change the time signature and/or measure data, first follow the procedure to clear the memory.
	The playback timing of the rhythm pattern is different from the timing with which it was recorded.	▪ The QUANTIZE function was on when the pattern was recorded and the timing was automatically corrected. Set the quantize level to a smaller note unit or to OFF when recording.
Disk Drive	The Disk Drive produces a noise during recording or playback.	▪ This occurs when the Disk Drive is reading a disk. It does not indicate a problem.
	When the procedure to load from a disk is performed, the contents of the keyboard memory are erased.	▪ When performing the load operation from a disk, this instrument's memory changes to that of the data loaded from the disk. If you wish to preserve a song which is stored in this instrument's memory, save it on a disk before performing the load procedure.
MIDI	Data cannot be exchanged through MIDI terminals.	▪ Match the channels on the transmitting side and the receiving side.
	The sound quavers or is distorted.	▪ When the **USB** terminal or both the **MIDI IN** and **OUT** terminals are connected to a computer, depending on the computer software the received data may be sent back to the instrument just as it is. Because of this the sound generated from the keys and the sound generated from the returned data are both produced, causing undesirable effects, such as the sounds canceling each other out, for example. In this case, either change the software settings to prevent received data from being returned, or set the MIDI LOCAL CONTROL to off.
Other	Noise from a radio or TV can be heard.	▪ This sometimes occurs when electrical equipment such as a radio or TV is used near the instrument. Try moving such electrical equipment further away from the instrument. ▪ The sound may be coming from a nearby broadcast station or amateur radio station. If the sound is bothersome, consult your dealer or service center.
	The cabinet becomes warm during use.	▪ This instrument has a built-in power source that heats the cabinet to some degree. This is not an indication of trouble.

Error messages

No.	Contents
00	The data on the disk that you are using is for a different product.
01	An error has occurred while the disk was loading. Please try again!
02	There is no disk in the Disk Drive.
03	The file that you tried to load is empty.
05	An error has occurred while the disk was saving. Please try again!
06	The disk that you are using is write protected. Please remove the write protection and try again.
07	The disk that you are using is full. Please use another disk.
08	An error has occurred while the disk was formatting. The disk that you are using may be faulty. Please try formatting another disk.
10	The data is already copy protected.
15	The song you are trying to save is empty.
16	This STANDARD MIDI FILE is incompatible with this instrument and cannot be loaded.
17	This is not a STANDARD MIDI FILE.
18	The timebase (PPQ resolution) that you tried to load is not 24/48/96/192/288/384 PPQ.
20	A problem has occurred with your **SEQUENCER** Data. This might be due to a damaged or faulty disk.
21	Memory full
22	It is necessary to press REC STOP to complete this procedure.
23	It is impossible to change the time signature because it has already been set in the existing tracks.
24	A rhythm track already exists. It is impossible to assign two tracks to rhythm.
25	It is only possible to change the velocity on a melody track.
26	It is only possible to merge melody tracks. Tracks such as rhythm, chord and control cannot be merged.
27	It is only possible to copy melody tracks. Tracks such as rhythm, chord and control cannot be copied.
28	This song is too long to be saved as a MIDI file.
29	The MIDI file that you have tried to load exceeds the memory capacity of this instrument and cannot be played. The **SEQUENCER** memory has been cleared.
30	It is not possible to change the time signature or measure length of a **COMPOSER** pattern after it has been recorded. If you want to proceed, you must first clear the entire **COMPOSER** pattern.

No.	Contents
31	The time signature of the pattern from which you are copying is different from the **COMPOSER** memory that you are using. Either: Change the time signature of the **COMPOSER** memory or: Copy from a pattern that has the same time signature
32	Memory full
33	Select a Track before setting parameters for AUTO PUNCH RECORD.
43	The file that you are trying to load was saved on a previous model. It is only possible to load using the “PERFORMANCE” option.
44	It is impossible to edit a Drum Kit. Please select a different sound from any group except Keyboard Percussion.
46	It is only possible to insert MELODY Tracks. Tracks such as RHYTHM, CHORD and CONTROL cannot be inserted.
47	This procedure is not possible with a composer pattern or the metronome. Please select a preset rhythm pattern.
54	It is not possible to record using preset banks, compile banks, or control banks. Please select one of the user banks.
55	Special tracks such as CHORD (APC), RHY and CTL exist in the song from which you are copying and are incompatible with the destination song because it is in the GM mode.
56	AUTO PUNCH recording has been unsuccessful because SEQUENCER operation was interrupted before the PUNCH OUT measure was reached.
58	The song that you have tried to load exceeds this instrument’s available memory and cannot be loaded. The selected song memory has been cleared.
62	The computer connection is not active because the computer port switch is set to MIDI. Please turn the power off, set the switch to the desired setting and turn the power back on.
64	Please select the Panel Memory that you want to name.
65	It is not possible to use the CHORD FINDER in this mode. Please select CHORD FINDER from HOME page or CHORD STEP RECORD page.
66	SOLO pads are special pads which include Chord information. Pleases use SOLO pads when the rhythm and accompaniment is playing.
67	There are no APC or CHORD tracks. Select and APC track or CHORD track, and try again.
68	It is not possible to record directly into the SOLO pads. Record on the SEQUENCER and Copy the melody and chord information into a SOLO pad.
69	It is not possible to delete all measures.
70	It is not possible to insert over 16 measures in a PATTERN.
71	It is not possible to set the start measure to the measures you set to copy.

MIDI Implementation Chart

Digital Ensemble [PR604]

Function		Transmitted	Recognized	Remarks
Basic Channel	Default	1-16	1-16	Assigned to the part.
	Changed	1-16	1-16	
Mode	Default	3	Mode 3	OMNI OFF, POLY MODE
	Messages	Mode 3, 4 (M=1)	Mode 3, 4 (M=1)	*M=1 only
	Altered	—	—	
Note Number		0-127	0-127	
	True voice	—	0-127	
Velocity	Note ON	○	○	
	Note OFF	×	×	
After Touch	Key's	×	×	
	Ch's	○ × *	○ × *	
Pitch Bend		○ × *	○ × *	
Control Change	0,32	○ × *	○ × *	Bank Select MSB, LSB
	1	○ × *	○ × *	Modulation
	5	○	○	Portamento time
	6,38	○ × *	○ × *	Data entry MSB, LSB
	7	○ × *	○ × *	Volume
	10	○ × *	○ × *	Panpot
	11	○ × *	○ × *	Expression
	12,13	○ × *	○ × *	Sound DSP
	64	○ × *	○ × *	Sustain
	65	○	○	Portamento on / off
	66	○	○	Sostenuto
	67	○	○	Soft Pedal
	71~78	○ × *	○ × *	Sound controllers
	80~83	○	○	Part Equalizer
	91~95	○ × *	○ × *	Effect 1~5 Depth
	98,99	○ × *	○ × *	NRPN
	100,101	○ × *	○ × *	RPN
Prog Change		○ × *	○ × *	
	True #	—	0-127	
System exclusive		○ × *	○ × *	
System common	Song Pos	○ × *	○ × *	
	Song Sel	○ × *	○ × *	
	Tune	×	×	
System Real Time	Clock	○ × *	○ × *	
	Commands	○ × *	○ × *	Start / Stop, continue
Aux Messages	Local ON / OFF	×	×	
	All notes OFF	×	○	
	Active Sense	○	○	
	Reset	×	×	
Notes		○ × * ····· Whether or not the data for each of these items is transmitted / received can be set.		

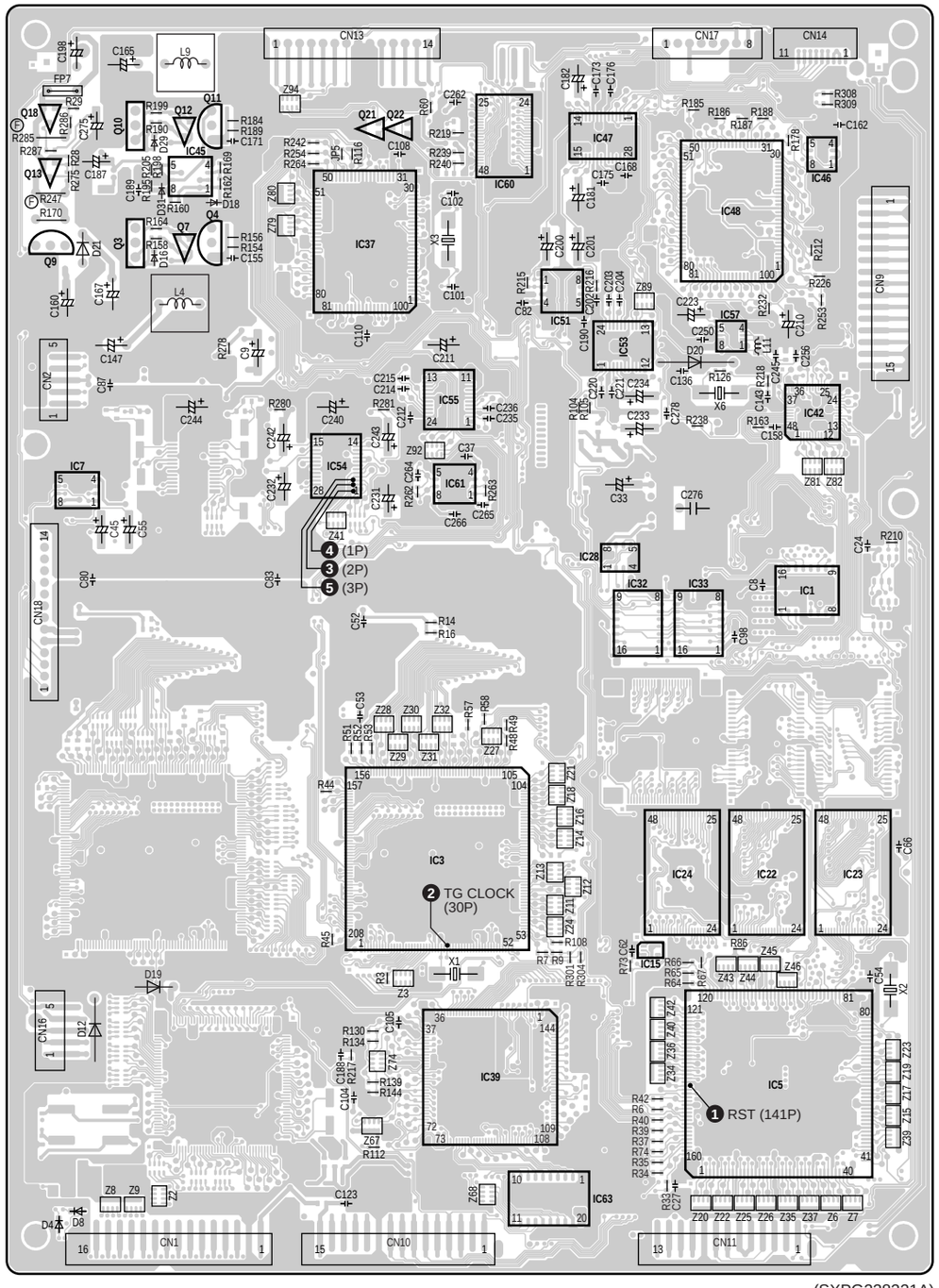
Mode 1: OMNI ON, POLY Mode 2: OMNI ON, MONO ○: Yes

Mode 3: OMNI OFF, POLY Mode 4: OMNI OFF, MONO ×: No

FDD
FLOPPY DISK DRIVE
LCD
D INV
CN5001
CN5005
T5001
POWER TRANSFORMER
CN5002
A MAIN
CN9
CN10
K MKB1
CN8
IC1
DECODER
SWITCHES & DIODES
KB0-KB4
KF0-KF3,KS0-KS3
CN9
CN3
L MKB2
CN4
IC2
IC3
DECODER
DECODER
CN7
SWITCHES & DIODES
CN1
G CPCL
SWITCHES & LEDS
CN100
E CPL
CN1
SWITCHES & LEDS
IC2,3
Q1-5
BUFFER
LED DRIVER
IC1
SEG0-SEG10
CM0-CM4
SW0-SW7
8BIT MICROCOMPUTER
SW0-SW7
RST
SEG0-SEG1
VR1
MAIN VOLUME
CN3
CN2
CN2
CN11
IP101
+5D
IC38
BUFFER
IC5
32 BIT MICRO CONTROLLER
SBO2
SBI2
USB+
IC49
UTXD1
URXD1
P60-P67
IC48
P60-P67
ADDRESS BUS
A0-A22
CP DATA,CP CLK
SBI1
SBO1
SOFT,SOSUTENUTO
IC42
A0-A2
FLOPPY DISK CONTROLLER
D16-D23
IC43
A0-A20
COLOR LCD CONTROLLER
D16-D31
D16-D31
VIDEO OUT
IC60
BUFFER
IC54
D/A CONVERTER
IC61
DATA BUS
IC16,17
D16-D31
DYNAMIC RAM
A2-A13
IC19,20
D16-D31
STATIC RAM
A0-A17
IC50
D16-D31
64M BIT GRAPHIC ROM
A1-A21
IC22,23
D16-D31
PROGRAMMED FLASH ROM
A2-A22
IC24
D16-D31
32M BIT RHYTHM DATA ROM
A1-A21
IC55
A/D CONVER
IC39
COLOR LCD CONTROLER
A0-A21
D16-D31
MD0-MD15
MA1-MA8
IC38
4M BIT DYNAMIC RAM
MD0-MD15
MA1-MA8
SUSTAIN
IC37
EA0-EA9
SDOE0,1
SDIE0,1,2
ED0-ED15
DIGITAL SIGNAL PROCESS
IC3
A1-A3
D16-D31
SDOE0,1
SDIE0,1,2
WD0-WD15
WAY0-WAY22
WAX0-WAX22
KB0-KB4
KF0-KF3,KS0-KS3
SDO0
SDI
DATA BUS
MASTER TONE GENERATOR LSI
ADDRESS BUS
ADDRESS BUS
IC35
EA0-EA9
16M BIT DYNAMIC RAM
ED0-ED15
IC10
WD0-WD15
128M BIT MASK ROM
WAY0-WAY22
IC11
WD0-WD15
128M BIT MASK ROM
WAX0-WAX22

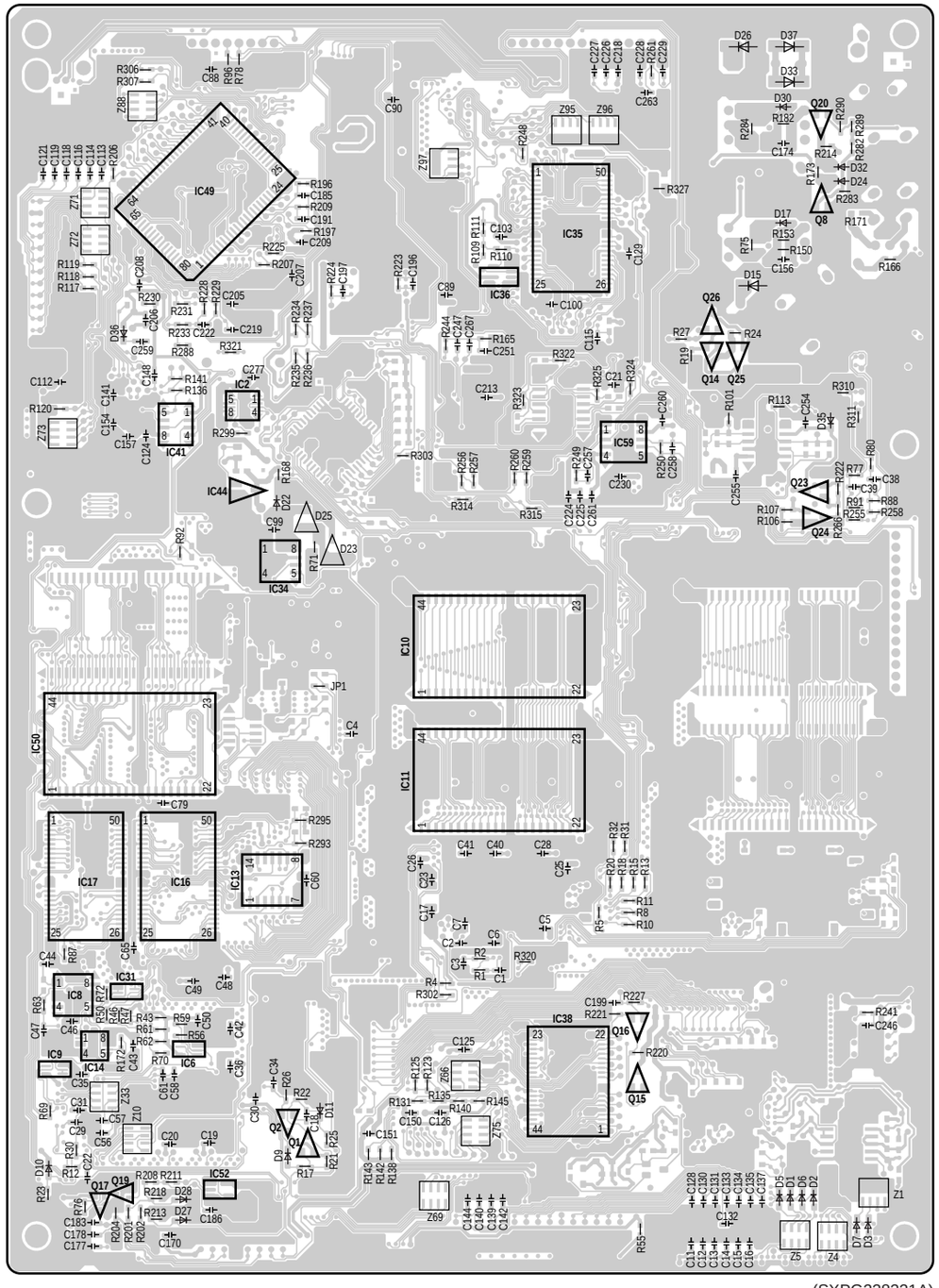
H CPCR
SWITCHES & LEDS
CN100
F CPR
CN1
SWITCHES & LEDS
IC2,3
Q1-5
BUFFER
LED DRIVER
IC1
SEG0-SEG10 CM0-CM4 SW0-SW7
8BIT MICROCOMPUTER
SW0-SW7 RST AD0 SEG0-SEG1
CN2
+5D
+VCC
CN18
+15A
-15A
+3.3D
+5A
B AS
CN2
+15
Q5,6
+15V REGULATOR
D3,5
CN1
-15
Q7,8
-15V REGULATOR
D7,9
FP5
+15A
FP6
-15A
+VCC
FP3
-VCC
FP4
T1 POWER TRANSFORMER
M JACK 2/2
CN2
CN1
JK1
SW1 POWER SWITCH
AC CORD
D11
CN4
CN5
SP2(Rch) 16cm; 6Ω
SP6(Rch) 6.5cm; 8Ω
SP1(Lch) 16cm; 6Ω
SP5(Lch) 6.5cm; 8Ω
SP3(Rch) 12cm; 8Ω
SP4(Lch) 12cm; 8Ω
IC2,3,4
IC8,9
CN6
ASUB
IC5,6,7
IC8,9
CN7
EQUALIZING
POWER AMPLIFIER
J HP/MIC
D2 POWER INDICATOR
CN3
CN2
CN1
JK1
1
JK2
2
HEADPHONE
IC1B Q12,13
IC1A Q14,15
IC7
IC1
JK3
MIC
CN3
VR1 MIC VOLUME
CN16
CN17
M JACK 1/2
CN4
JK8
L
JK9
R
LINE OUT
JK6
L
JK7
R
AUX IN
CN13
CN2
JK1
PEDAL IN
I PKB
SOFT SOSUTENUTO SUSTAIN
CN1
Q1
JK2
MIDI THRU
Q2
JK4
MIDI OUT
IC1
PHOTO COUPLER
JK3
MIDI IN
JK5
VIDEO OUT
USB

A MAIN P.C.B. (COMPONENT SIDE)



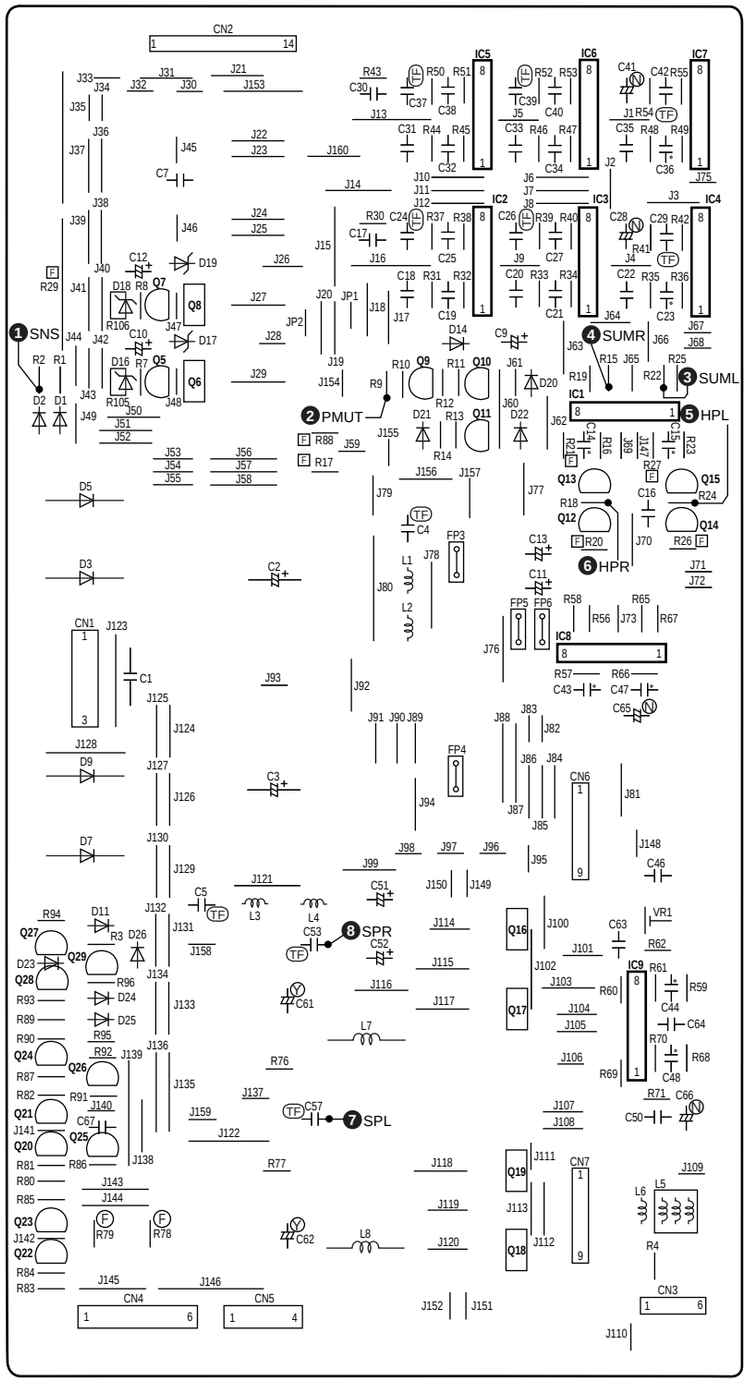
(SXPG238321A)

A MAIN P.C.B. (FOIL SIDE)



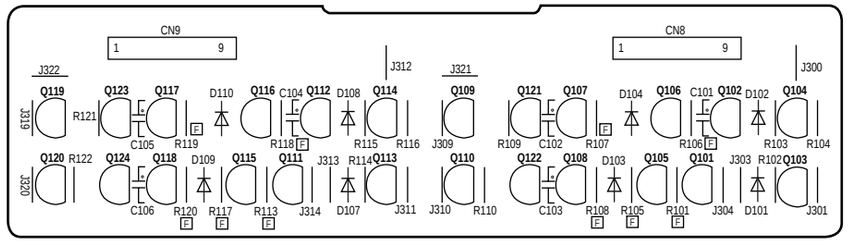
(SXPG238321A)

B AS P.C.B.



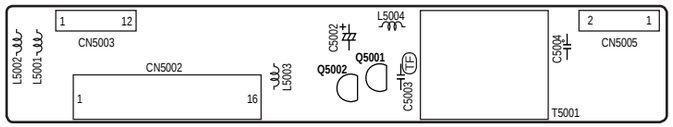
(SXPG239121A)

C ASUB P.C.B.



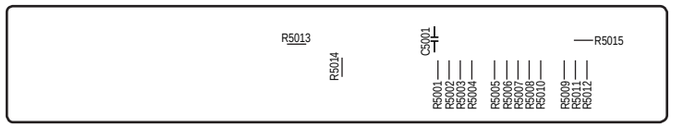
(SXPG239111B)

D INV P.C.B. (COMPONENT SIDE)



(SXPG238321B)

D INV P.C.B. (FOIL SIDE)

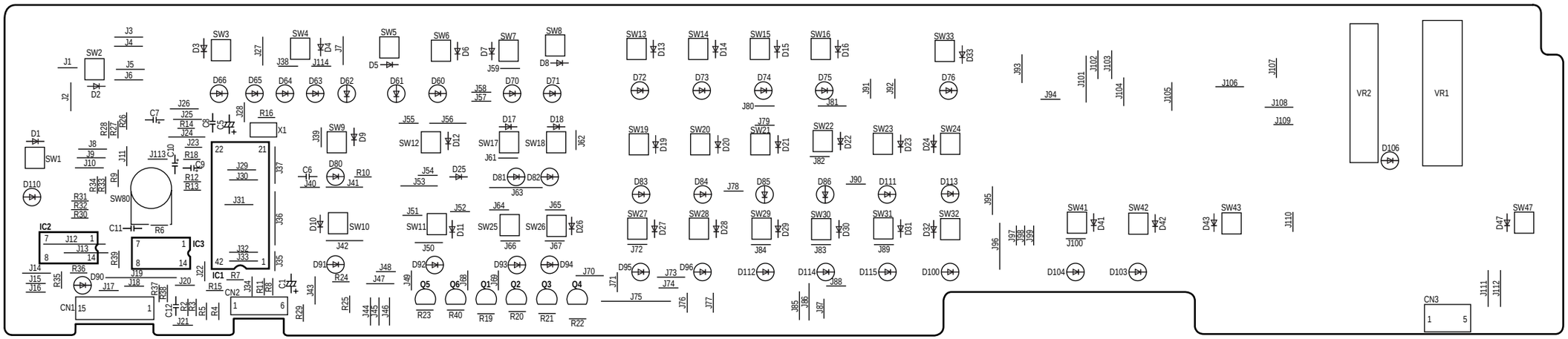


(SXPG238321B)

(Example)
Transistor's symbolmark:

Applied for all transistors

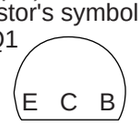
E CPL P.C.B.



(SXPG238421A)

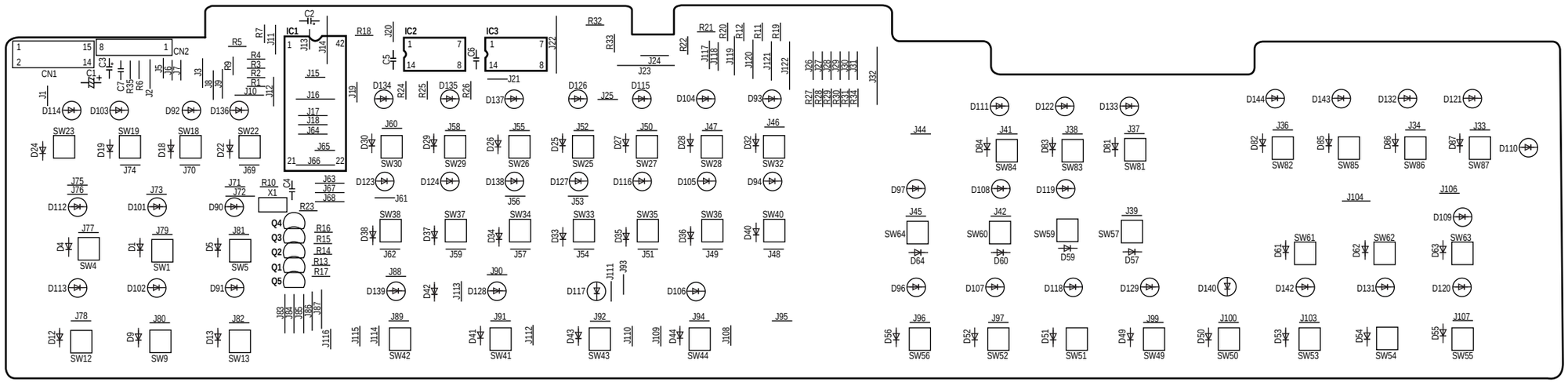
D60	INTRO&ENDING1	D85	LATIN&WORLD	D115	BALLAD	SW19	RHYTHM GROUP MEMORY LOAD
D61	INTRO&ENDING2	D86	C&W	SW1	FAVORITES	SW20	RHYTHM GROUP MATCH&WALTS
D62	BEAT1	D90	TEMPO/PROGRAM	SW2	TAP TEMPO	SW21	RHYTHM GROUP BALLROOM SHOWTIME
D63	BEAT2	D91	PROGRESSIVE PIANIST	SW3	SYNCHRO START	SW22	RHYTHM GROUP C&W
D64	BEAT3	D92	PIANO STYLIST	SW4	START/STOP	SW23	RHYTHM GROUP GOSPEL BLUES
D65	BEAT4	D93	SOUND ARRANGER OFF/ON	SW5	SIMPLE PIANO	SW24	RHYTHM GROUP SOUL&DISCO
D66	SYNCHRO START	D93	BIGBAND&SWING	SW5	INTRO&ENDING2	SW25	SOUND ARRANGER OFF/ON
D70	FILL IN2	D94	SOUND ARRANGER SET	SW6	INTRO&ENDING1	SW26	SOUND ARRANGER SET
D71	FILL IN1	D95	METRONOME	SW7	COUNT INTRO FILL IN2	SW27	RHYTHM GROUP METRONOME
D72	VARIATION&MSA3	D96	LATIN&WORLD	SW8	SEQUENCER RESET	SW28	RHYTHM GROUP LATIN&WORLD
D73	VARIATION&MSA3	D100	8&16 BEAT	SW10	PROGRESSIVE PIANIST	SW29	RHYTHM GROUP BIGBAND&SWING
D74	VARIATION&MSA2	D103	PIANO PERFORMANCE PAD BANK (PR804)	SW11	PIANO STYLIST	SW30	RHYTHM GROUP JAZZ COMBO
D75	VARIATION&MSA1	D104	PIANO PERFORMANCE PAD STOP (PR804)	SW12	ONE TOUCH PLAY	SW31	RHYTHM GROUP BALLAD
D76	MUSIC STYLE ARRANGER	D106	APC/SEQUENCER VOLUME	SW13	VARIATION&MSA4	SW32	RHYTHM GROUP 8&16 BEAT
D80	SIMPLE PIANO	D110	FAVORITES	SW14	VARIATION&MSA3	SW33	MUSIC STYLE ARRANGER
D81	FADE OUT	D112	BIGBAND&SWING	SW15	VARIATION&MSA2	SW41	SIANO PERFORMANCE PADS STOP
D82	FADE IN	D111	GOSPEL BLUES	SW16	VARIATION&MSA1	SW42	PIANO PERFORMANCE PADS BANK
D83	MEMORY	D113	SOUL & DISCO	SW17	FADE OUT	SW43	PIANO PERFORMANCE PAD AUTO SETTING
D84	MATCH&WALTZ	D114	JAZZ COMBO	SW18	FADE IN	SW47	DEMO

(Example)
Transistor's symbolmark:



Applied for all transistors

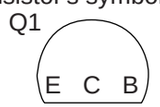
F CPR P.C.B.



(SXPG238421B)

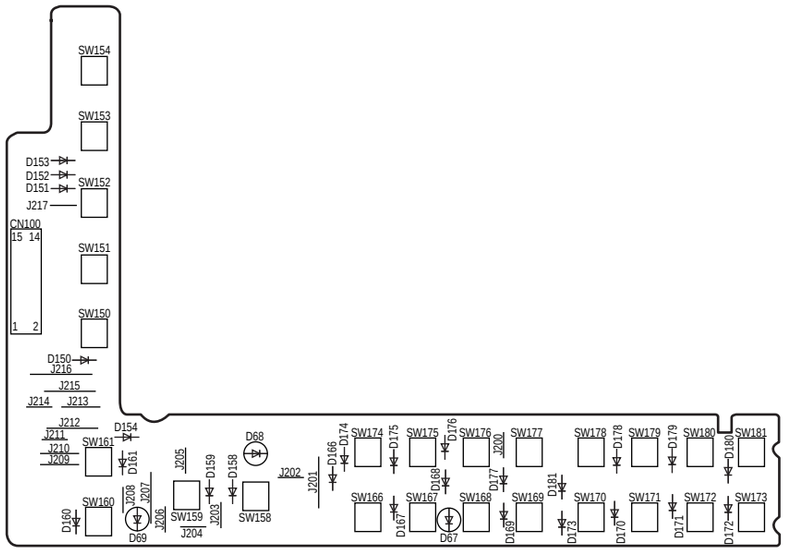
D90	PART SELECT RIGHT1	D118	PANEL MEMORY3	SW5	PART SELECT RIGHT2	SW48	DIGITAL DRAWBER
D91	CONDUCTOR RIGHT1	D119	DIGITAL EFFECT	SW9	CONDUCTOR RIGHT2	SW49	PANEL MOMORY4
D92	R1/R2 OCTAVE-	D120	PANEL MEMORY8	SW12	CONDUCTOR LEFT	SW50	PANEL MOMORY5
D93	SOUND EXPLORER	D121	DISC LOAD	SW13	CONDUCTOR RIGHT1	SW51	PANEL MOMORY3
D94	MEMORY	D122	EFFECT CHORUS	SW18	R1/R2 OCTAVE-	SW52	PANEL MEMORY2
D95	DIGITAL DRAWBER	D123	VOCAL	SW19	TRANSPOSE+	SW53	PANEL MEMORY6
D96	PANEL MEMORY1	D124	GUITAR&HARPSI	SW22	R1/R2 OCTAVE+	SW54	PANEL MEMORY7
D97	TECHNI-CHORD	D126	ORGAN&ACCORDION	SW23	TRANSPOSE-	SW55	PANEL MEMORY8
D100	THEATER SONIC	D127	BASS	SW25	ORGAN&ACCORDION	SW56	PANEL MEMORY1
D101	PART SELECT RIGHT2	D128	PIANO UPRIGHT	SW26	SAX&WOODWIND	SW57	BRILLIANCE
D102	CONDUCTOR RIGHT2	D129	PANEL MEMORY4	SW27	SOUND GROUP SYNTH	SW59	DIGITAL EFFECT
D103	TRANSPOSE+	D131	PANEL MEMORY7	SW28	SOUND GROUP SOLOIST	SW60	SOLO
D104	SOLOIST	D132	PROGRAM MENUS	SW29	SOUND GROUP BRASS	SW61	SET
D105	MIXTURES	D133	EFFECT REVERB	SW30	SOUND GROUP STRINGS	SW62	NEXT BANK
D106	PIANO MODERN	D134	STRINGS	SW32	SOUND EXPLORER	SW63	BANK VIEW
D107	PANEL MEMORY2	D135	BRASS	SW33	SOUND GROUP BASS	SW64	TECHNI-CHORD
D108	SOLO	D136	R1/R2 OCTAVE+	SW34	MALLET&ORCHPERC	SW81	EFFECT REVERB
D109	BANK VIEW	D137	SAX&WOODWIND	SW35	DRUM KITS	SW82	SEQUENCER PLAY
D110	DISC IN USE	D138	MALLET&ORCHPERC	SW36	MIXTURES	SW83	EFFECT CHORUS
D111	MULTI EFFECT	D139	PIANO GRAND	SW37	GUITAR&HARPSI	SW84	MULTI EFFECT
D112	PART SELECT LEFT	D140	PANEL MEMORY5	SW38	SOUND GROUP VOCAL	SW85	SEQUENCER EASY REC
D113	CONDUCTOR LEFT	D142	PANEL MEMORY6	SW40	SOUND GROUP MEMORY	SW86	PROGRAM MENUS
D114	TRANSPOSE-	D143	EASY REC	SW41	PIANO UPRIGHT	SW87	DISC LOAD
D115	SYNTH	D144	SEQUENCER PLAY	SW42	PIANO GRAND	SW88	THEATER SONIC
D116	DRUM KITS	SW1	PART SELECT RIGHT1	SW43	PIANO ELECTRIC		
D117	PIANO ELECTRIC	SW4	PART SELECT LEFT	SW44	PIANO MODERN		

(Example)
Transistor's symbolmark:



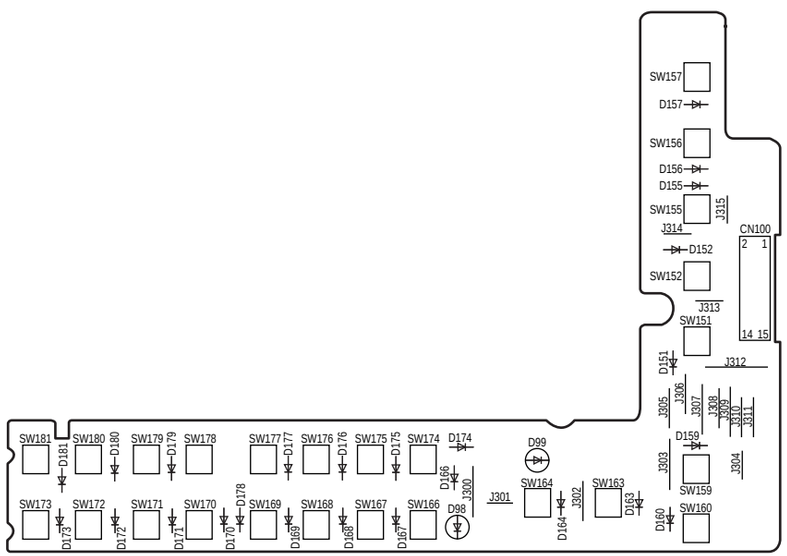
Applied for all transistors

G CPCL P.C.B.



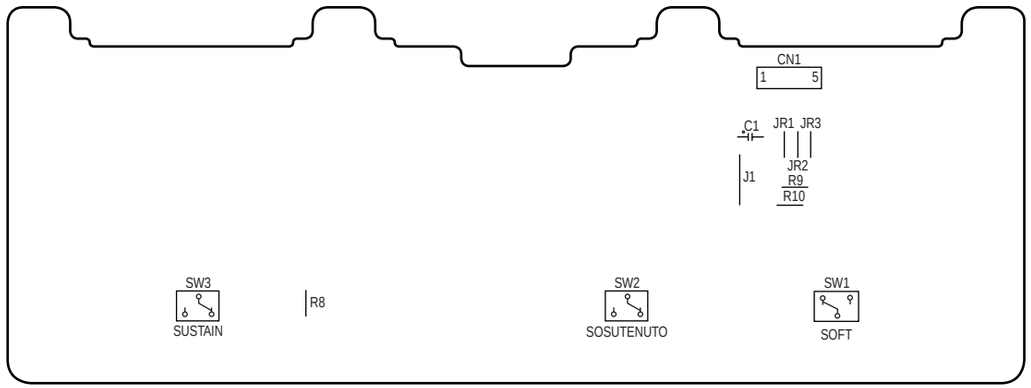
(SXPG238511A)

H CPCR P.C.B.



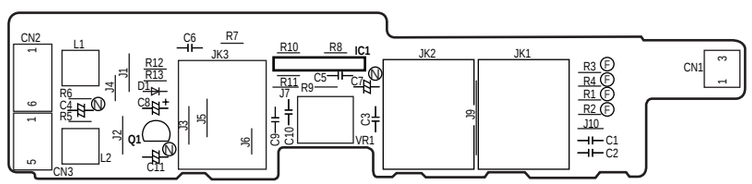
(SXPG238511B)

I PKB P.C.B.



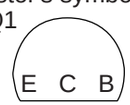
(SXPG218231)

J HP/MIC P.C.B.



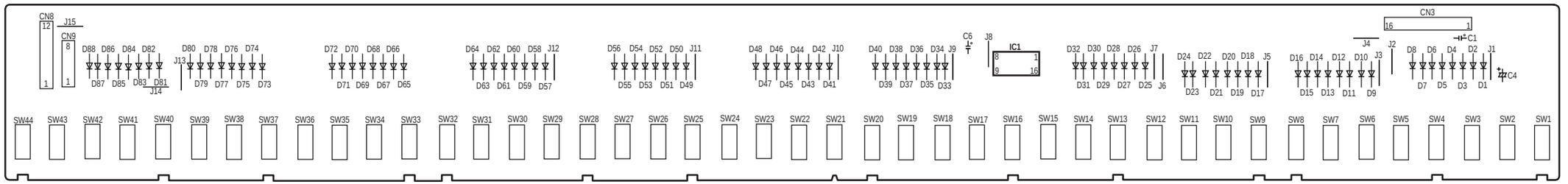
(SXPG238511D)

(Example)
Transistor's symbolmark:



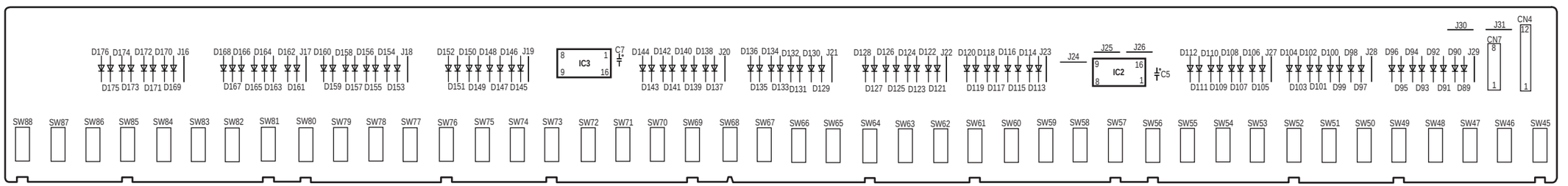
Applied for all transistors

K MKB1 P.C.B.



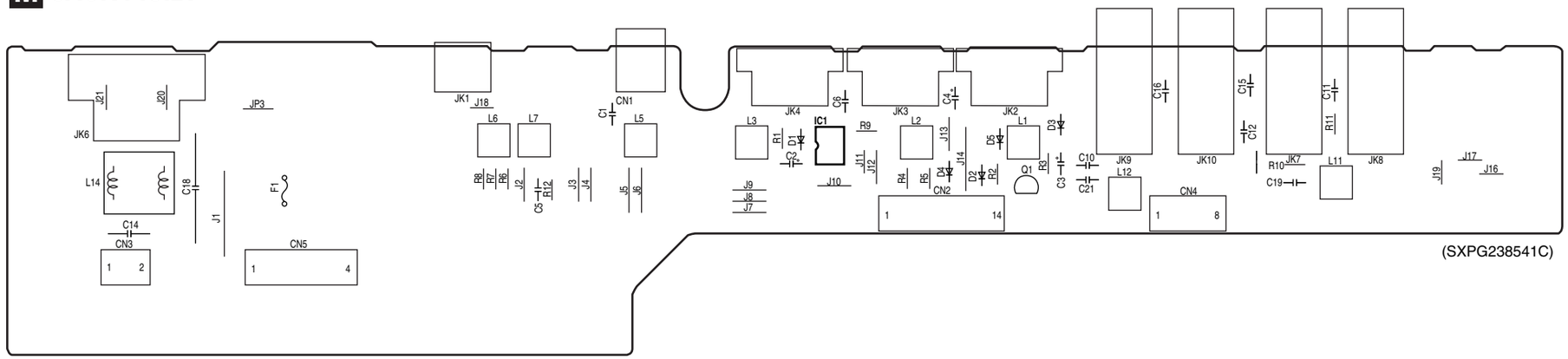
(SXPG231111A)

L MKB2 P.C.B.

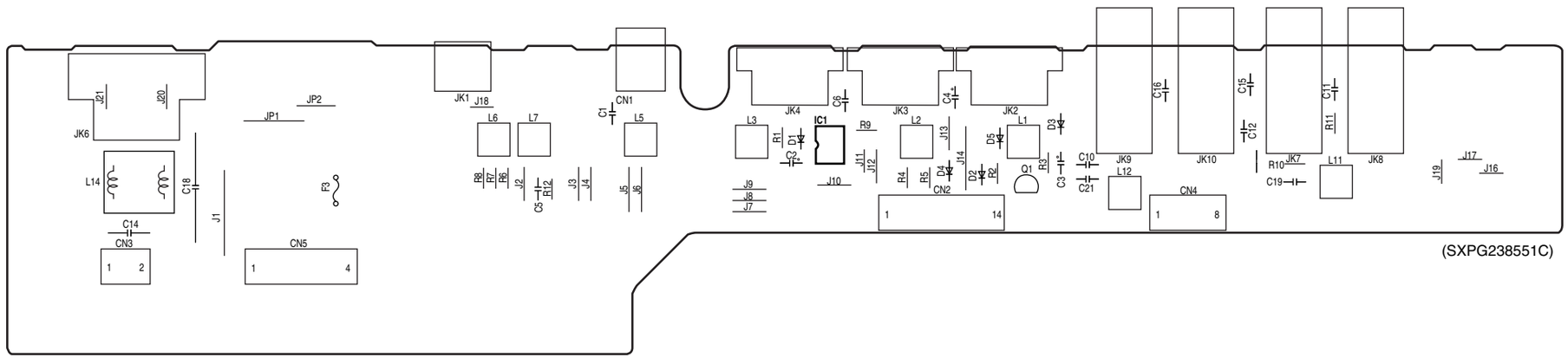


(SXPG231111B)

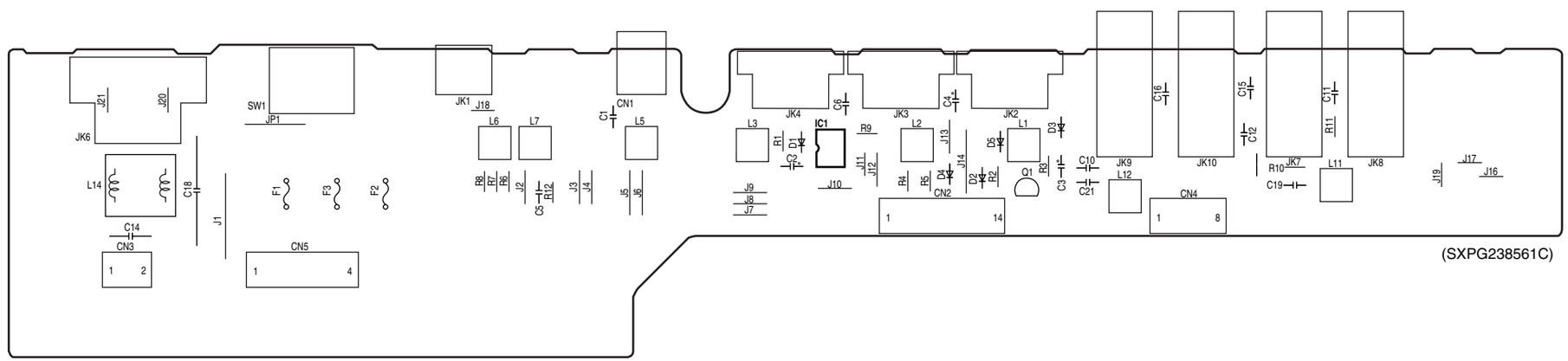
M JACK P.C.B.



(SXPG238541C)

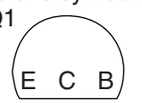


(SXPG238551C)



(SXPG238561C)

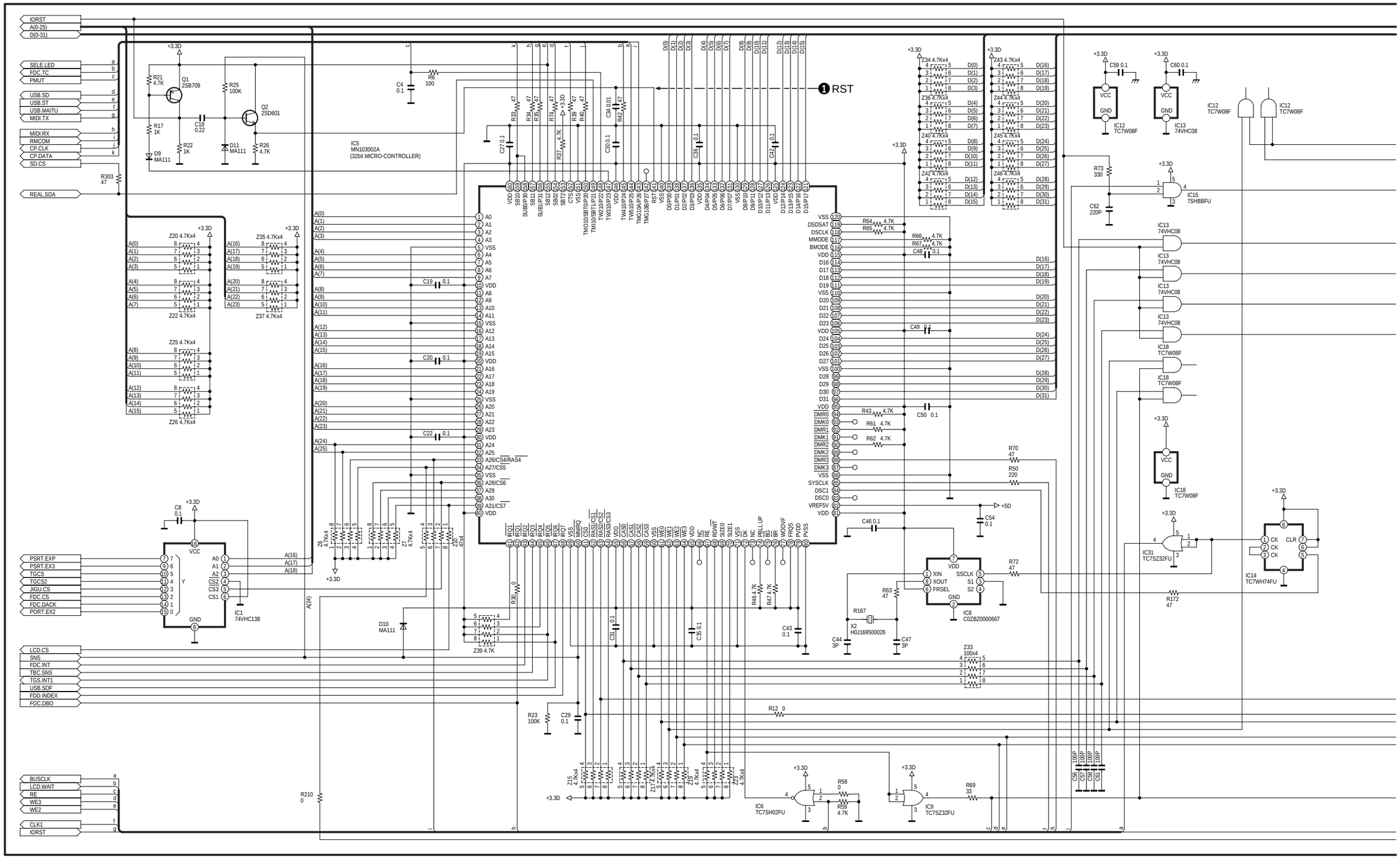
(Example)
Transistor's symbolmark:
Q1



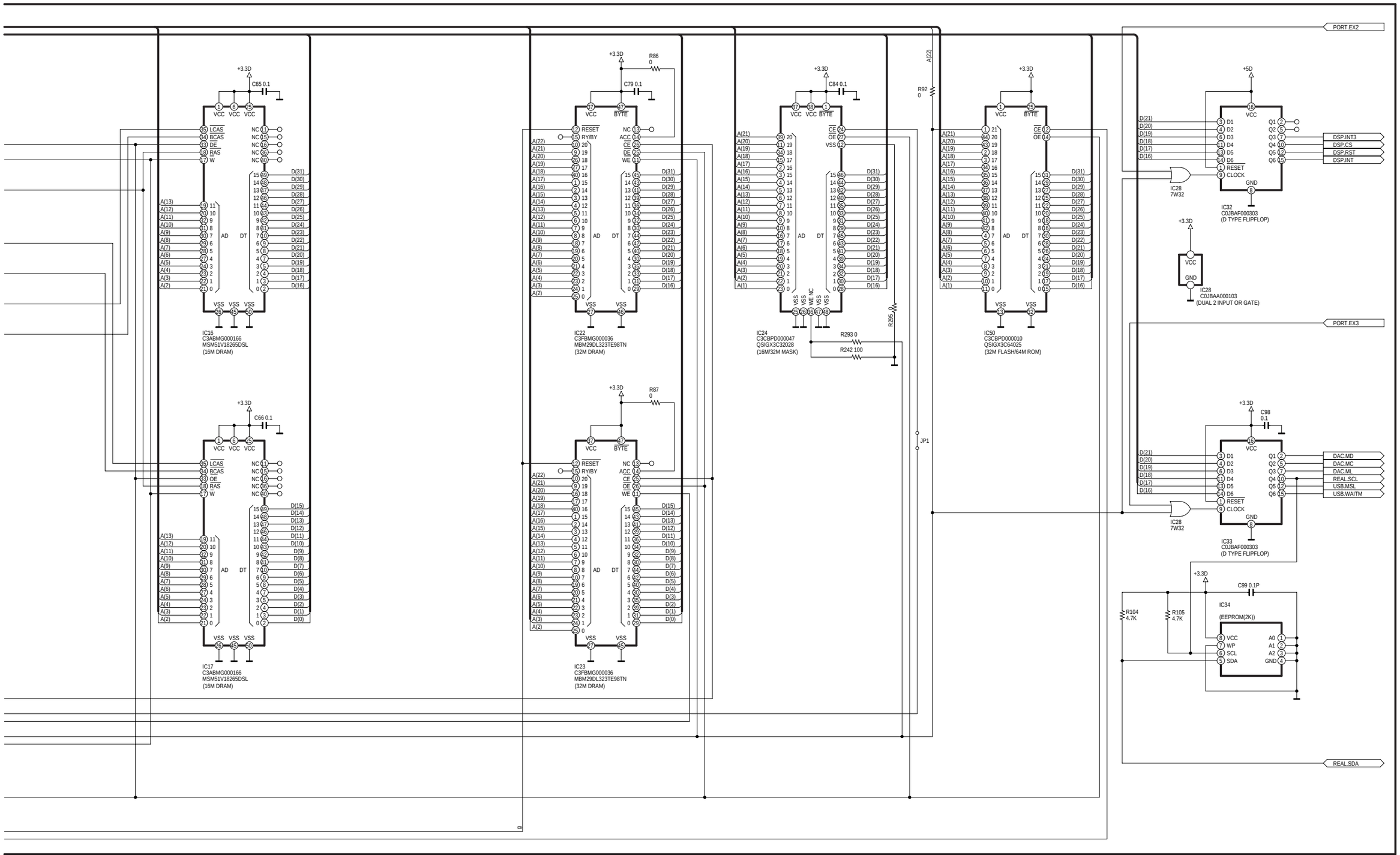
Applied for all transistors

SCHEMATIC DIAGRAM-1

A MAIN 1/5 CIRCUIT

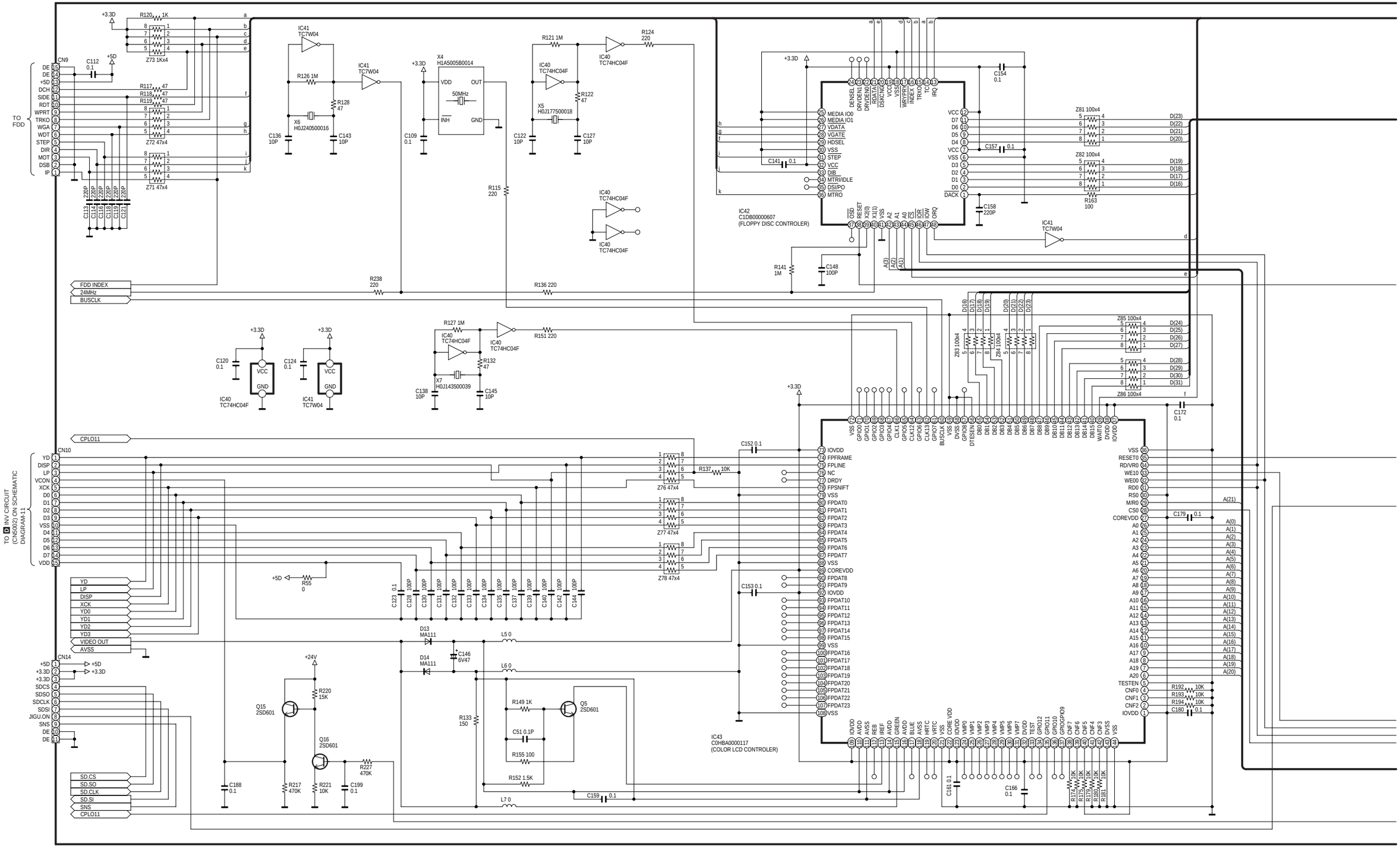


SCHEMATIC DIAGRAM-2

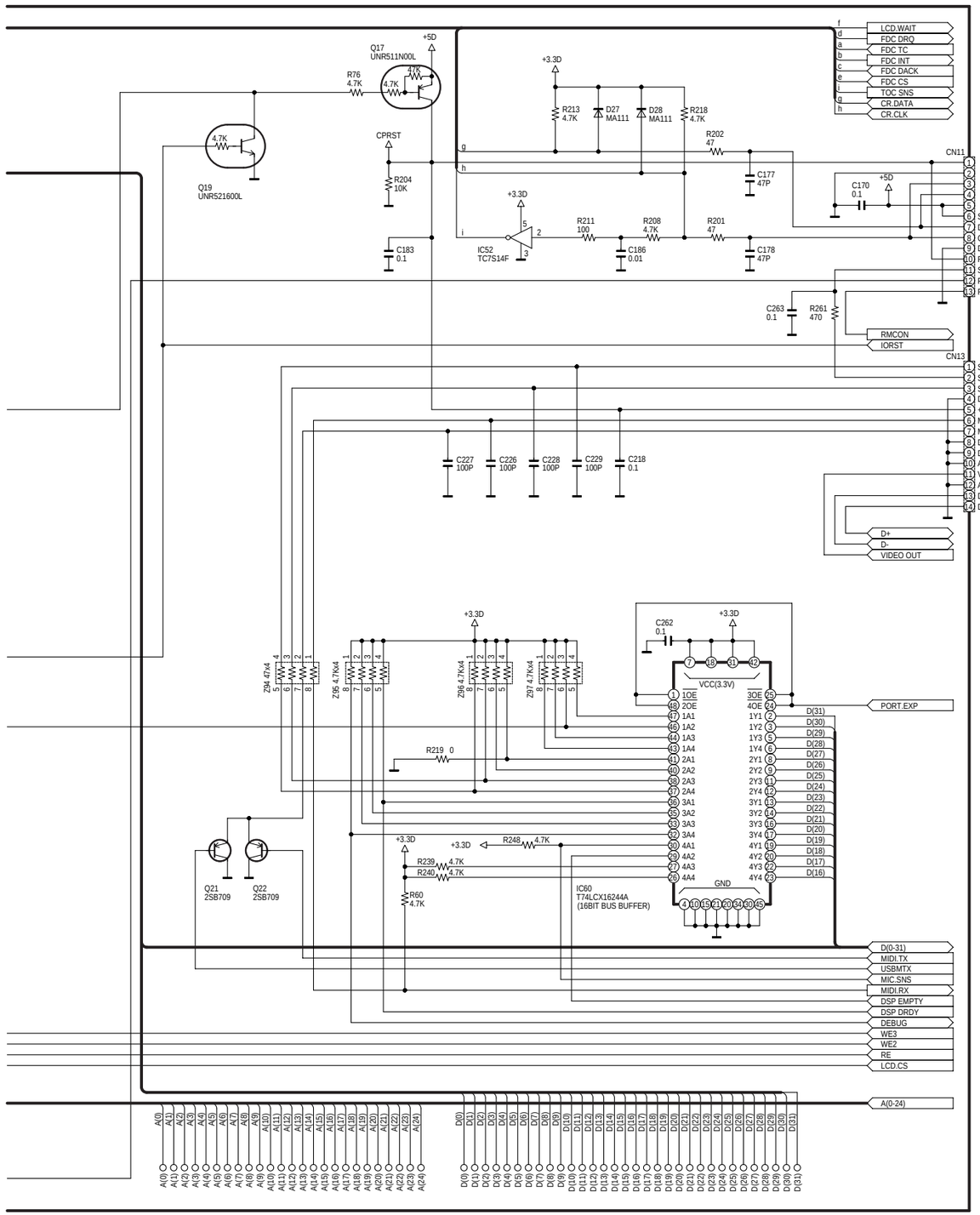


SCHEMATIC DIAGRAM-3

A MAIN 2/5 CIRCUIT

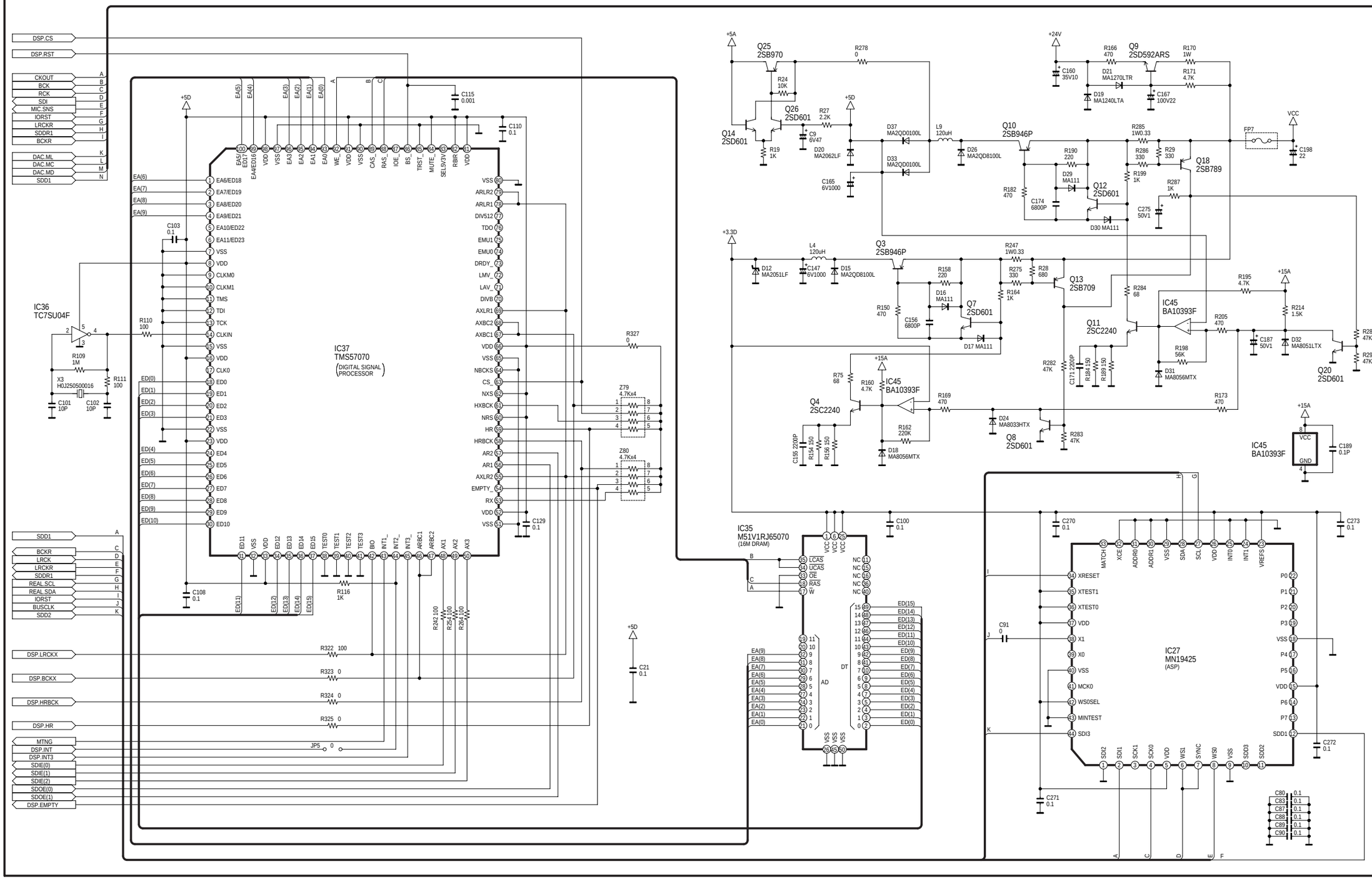


SCHEMATIC DIAGRAM-4

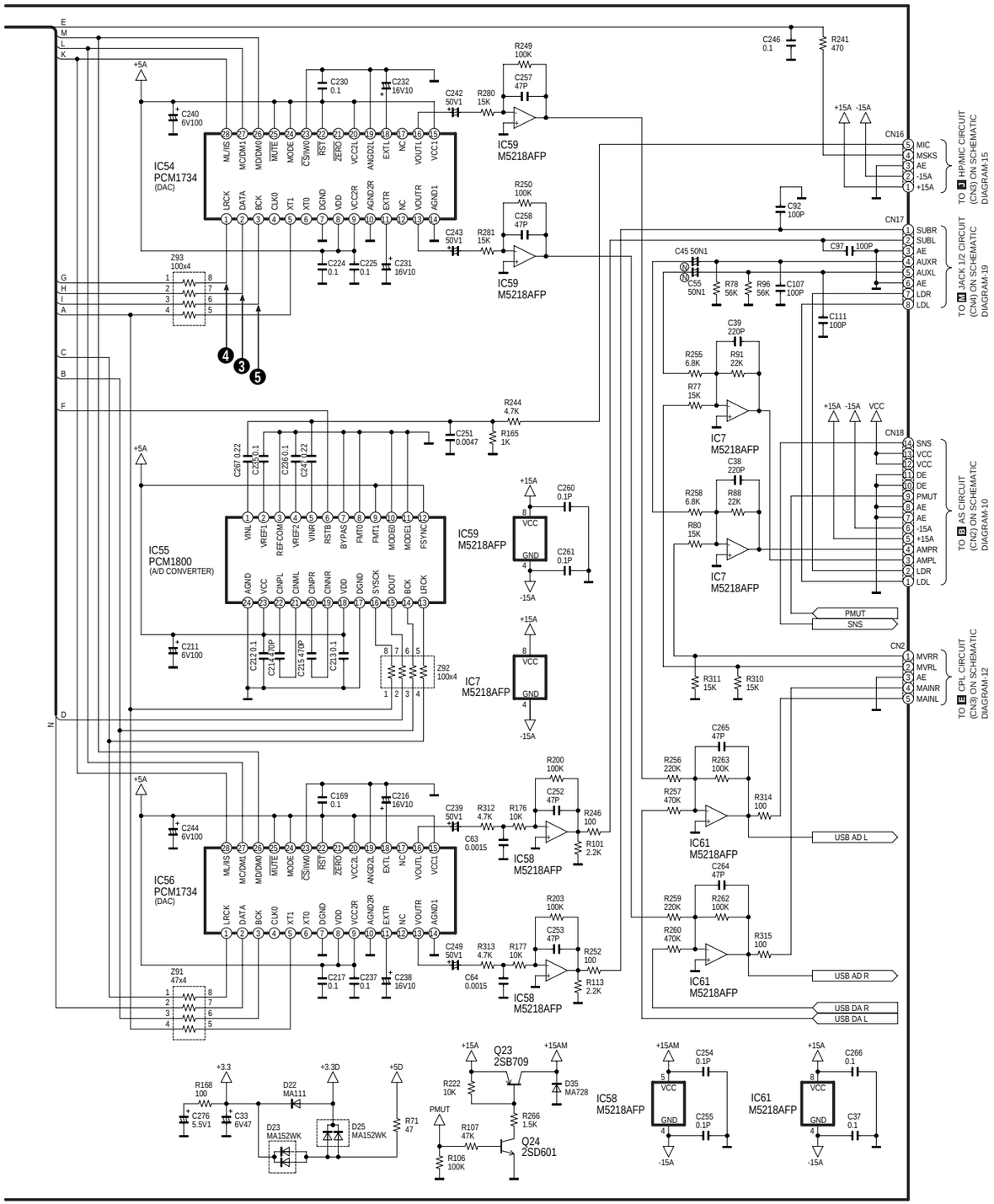


SCHEMATIC DIAGRAM-5

A MAIN 3/5 CIRCUIT

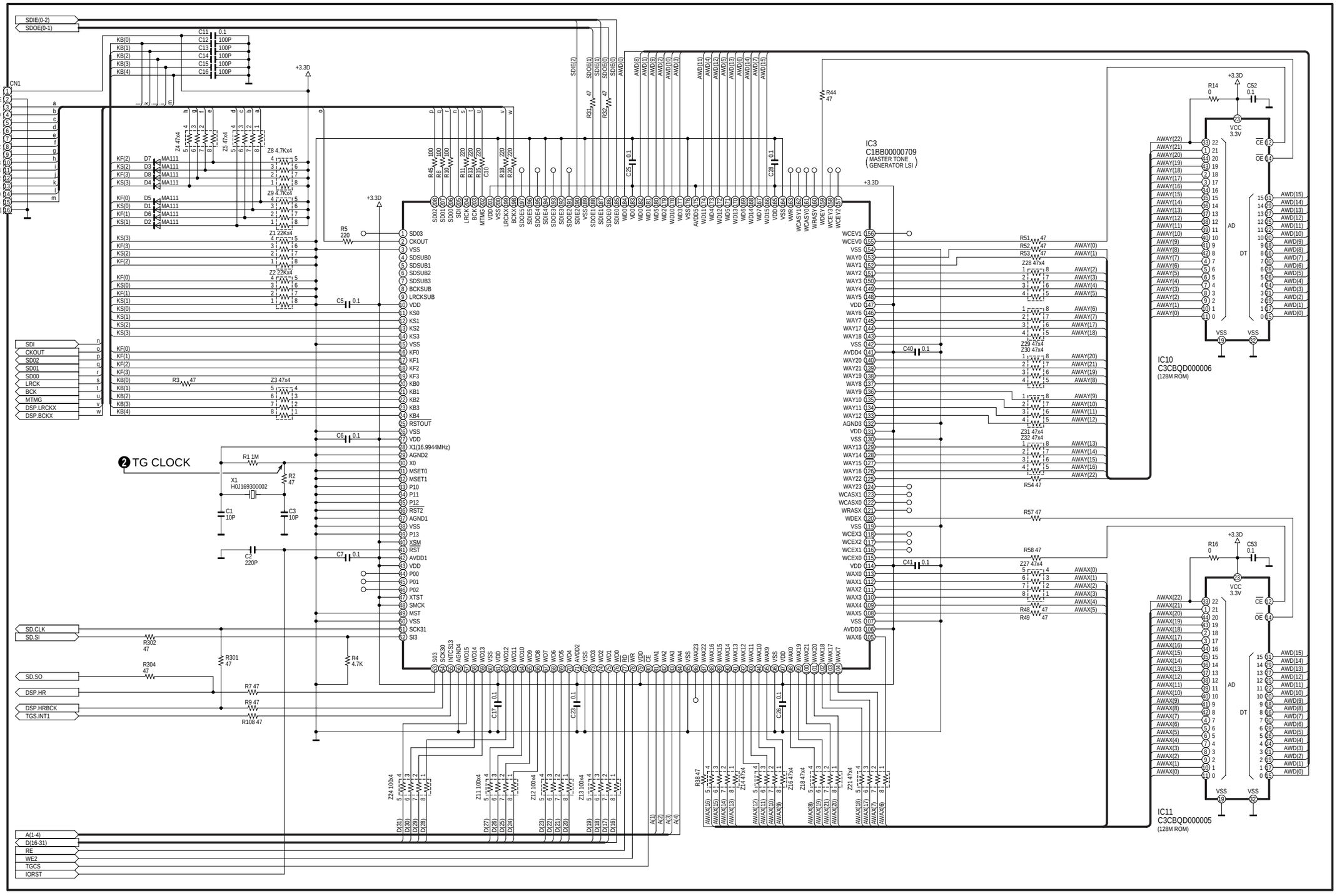


SCHEMATIC DIAGRAM-6



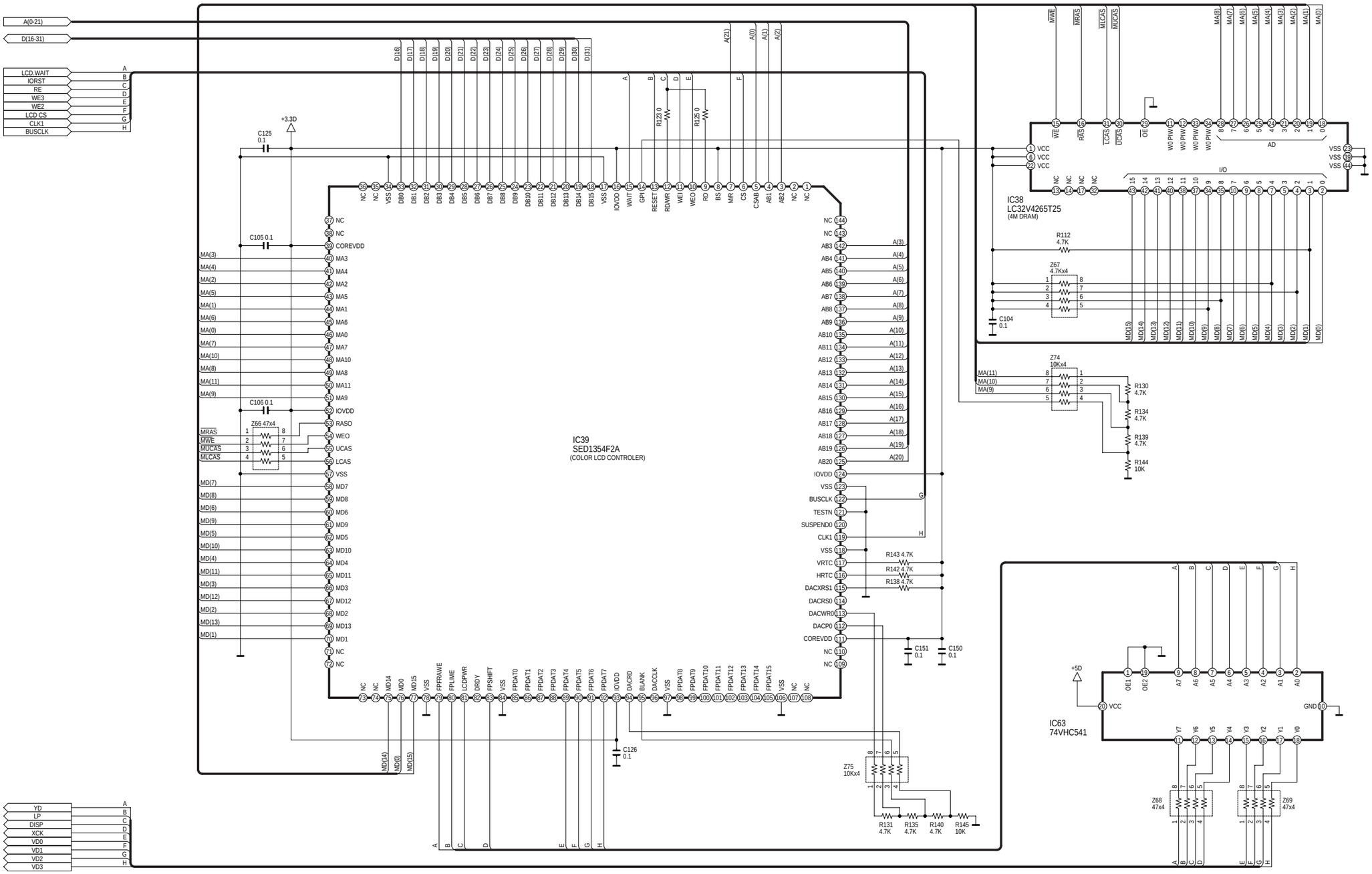
SCHEMATIC DIAGRAM-7

A MAIN 4/5 CIRCUIT

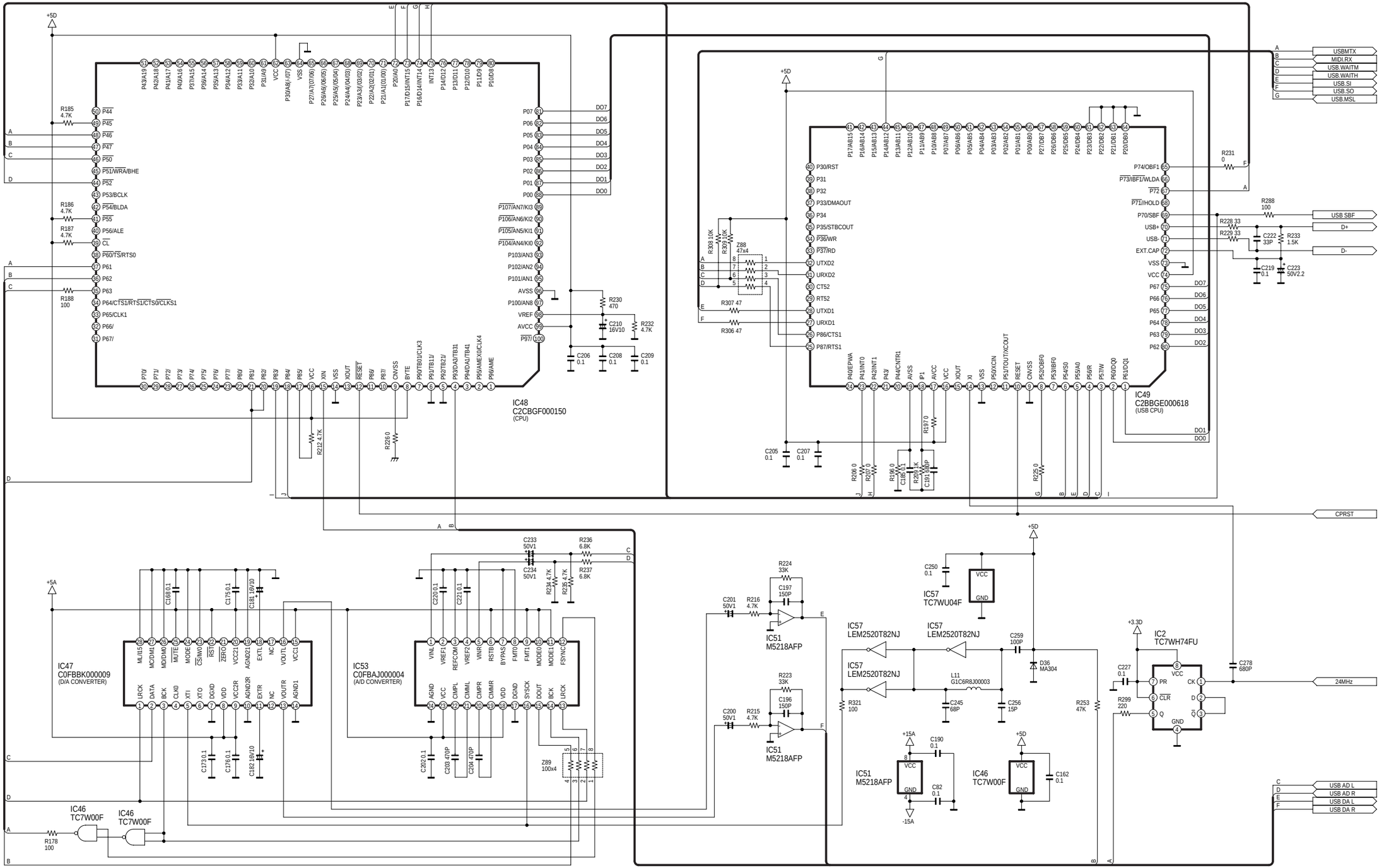


SCHEMATIC DIAGRAM-8

A MAIN 5/5 CIRCUIT



SCHEMATIC DIAGRAM-9



SCHEMATIC DIAGRAM-10

M JACK 2/2 CIRCUIT

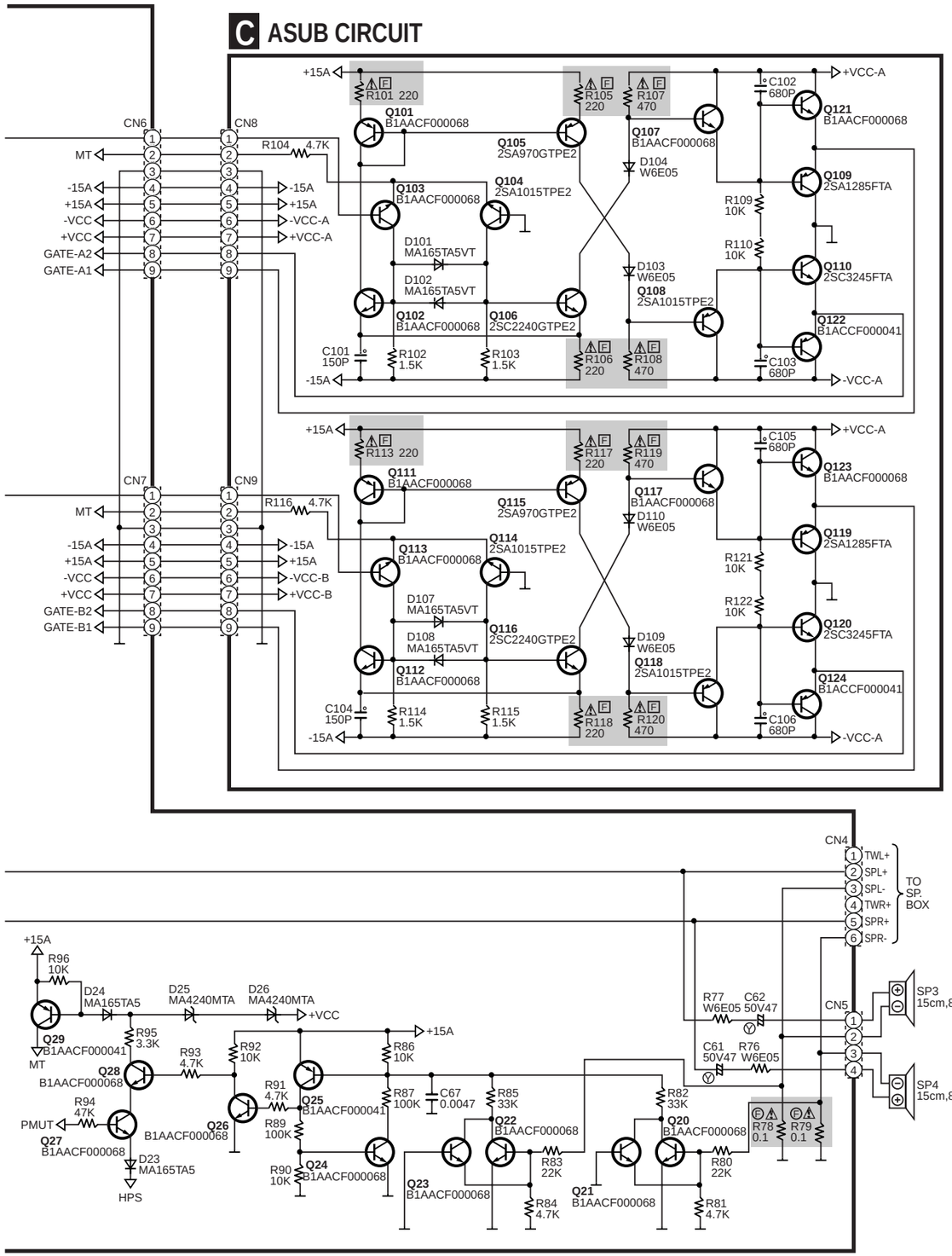
PRODUCTS FOR GU GH GT GM
PRODUCTS FOR P PC
PRODUCTS FOR OTHERS
PC1 AC POWER CORD
SW1 QSRGT005AA
T1 POWER TRANSFORMER
BLUE
BLACK
BLUE
F1
F2
F3
JK6
L14 QLQGT2T100SA
C14 4700P
C18 0.1
CN3
CN5
AC1
AC2

B AS CIRCUIT

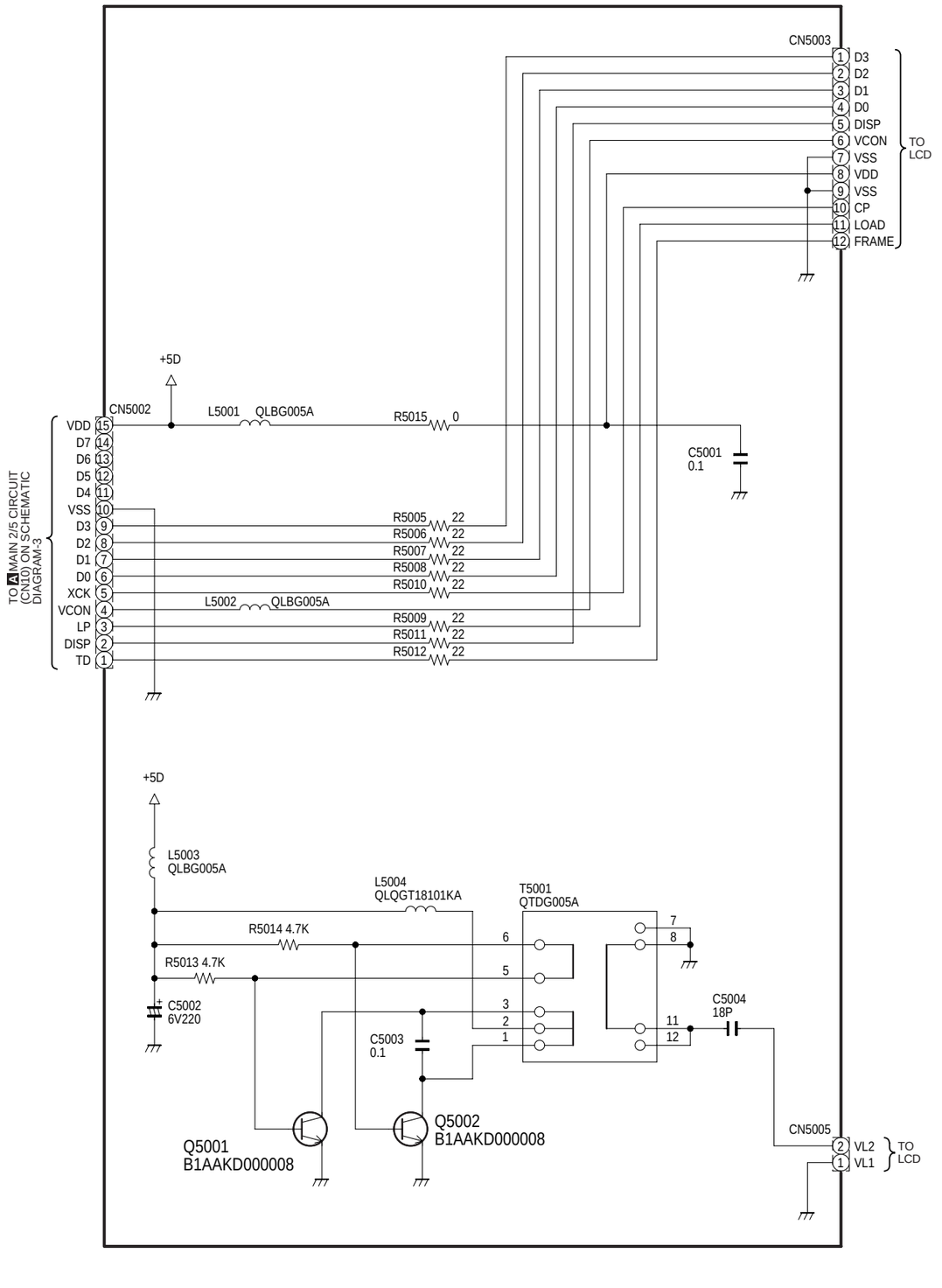
TO J HP/MIC CIRCUIT (CN2) ON SCHEMATIC DIAGRAM-15
TO A MAIN 3/5 CIRCUIT (CN18) ON SCHEMATIC DIAGRAM-6
CN1
CN2
CN3
LEDK
LEDA
E
HPL
HPR
HPS
SNS
LOR
LOL
L6 QLQGT1B800MA
C1 0.1
D11 ERA1502V5
R3 3.3K
R4 1.5K
L5 130uHx3
D1 ERA1502V5
D2 ERA1502V5
R1 10K
R2 10K
D3 SVDGS3V20-15
D5 SVDGS3V20-15
D7 SVDGS3V20-15
D9 SVDGS3V20-15
+VCC1
-VCC1
L1 QLBG005A
L2 QLBG005A
L3 QLBG005A
L4 QLBG005A
FP3
FP4
C4 1
C5 1
R17 6.8
R88 6.8
R7 10K
R8 10K
Q6 2SD2374A-P
Q5 B1ACCF000041
Q7 B1ACCF000041
Q8 2SB1548A-P
D14 MA4180TA
D17 MA4180TA
D19 MA4180TA
C2 63V10000
C3 63V10000
C10 50V1
C12 50V1
C7 16V100
C9 16V100
D16 MA4160MTA
D18 MA4160MTA
R105 6.8K
R106 6.8K
FP5
FP6
C11 16V10
C13 16V100
+15
+15A
-15
-15A
SNS
R20 4.7
R21 22
R18 22
R16 100K
C14 10P
R15 68K
C55 50V1
SUMR
Q12 2SD592ARSTA
Q13 2SB621ARSTA
Q14 2SD592ARSTA
Q15 2SB621ARSTA
C16 0.1
R26 4.7
R27 22
R24 22
R25 2.2K
R23 100K
C15 10P
R22 68K
C56 50V1
SUML
HPR
HPL
+15HM
-15HM
+10
-10
R19 2.2K
Q11 2SA1015TPE2
R13 330K
R14 100K
D21 MA165TA5
D22 EK04W
Q10 2SA1015TPE2
R11 10K
R12 3.3K
R10 47K
R9 10K
D20 EK04W
Q9 2SC1815TPE2
PMUT
IC1 M5218AL (HEADPHONE AMPLIFIER)
Q16 FX30KMJ-3
Q17 FS30KMJ-3
C51 63V220
C52 63V220
C53 1
L9 QLQGT1D600MA
GATE-A1
GATE-A2
25J
25K
R62 1.5K
VR1 1K
C46 0.0033
R60 100K
Q18 FX30KMJ-3
Q19 FS30KMJ-3
GATE-B1
GATE-B2
L10 QLQGT1D600MA
C57 1
R71 2.2K
C50 0.0033
R69 100K
C64 0.1
R70 1M
C48 470P
IC8 M5218AL (INTEGRATOR)
IC9 SVIGM5238L (INTEGRATOR)
R61 1M
C44 470P
C63 0.1
R66 560K
C47 22P
R65 39K
R67 2.2K
R68 39K
C66 50N1
R56 39K
R57 560K
C43 22P
R58 2.2K
C65 50N1
R59 39K
SUML
SUMR
R30 6.8K
C17 0.0068
R29 6.8
C30 0.0068
R43 6.8K
C24 0.033
C25 0.0047
R38 220K
R37 3.3K
R31 1.5K
C19 470P
C18 0.001
R32 220K
C26 0.068
C27 0.015
R40 220K
R39 6.8K
R33 4.7K
C21 0.001
C20 0.0068
R34 220K
C28 50N1
C29 0.22
R42 180K
R41 470
R35 6.8K
C23 470P
C22 0.047
R36 220K
J71
C37 0.033
C38 0.0047
R51 220K
R50 3.3K
R44 15K
C32 470P
C31 0.001
R45 220K
C39 0.068
C40 0.015
R53 220K
R52 6.8K
R46 4.7K
C34 0.001
C33 0.0068
R47 220K
C41 50N1
C42 0.22
R55 100K
R54 470
R48 6.8K
C36 470P
C35 0.047
R49 220K
J72
IC2 M5218AL (EQUALIZING)
IC3 M5218AL (EQUALIZING)
IC4 M5218AL (EQUALIZING)
IC5 M5218AL (EQUALIZING)
IC6 M5218AL (EQUALIZING)
IC7 M5218AL (EQUALIZING)
+VCC
-VCC
LOL
LOR
AMPL
AMPR
PMUT
VCC
SNS
E

SCHEMATIC DIAGRAM-11

C ASUB CIRCUIT



D INV CIRCUIT



SCHEMATIC DIAGRAM-12

E CPL CIRCUIT

TO A MAIN 3/5 CIRCUIT (CN12) ON SCHEMATIC DIAGRAM-6

TO G CPCL CIRCUIT(CN100) ON SCHEMATIC DIAGRAM-14

TO A MAIN 2/5 CIRCUIT (CN11) ON SCHEMATIC DIAGRAM-3 & TO L CPR CIRCUIT (CN2) ON SCHEMATIC DIAGRAM-13

IC1 M37471M2196S (8BIT MICROCOMPUTER)

CN3: WVRR, WVRL, AE, MAINR, MAINL

VR2 QRVG25P01B53

CN1: SEG0, SEG1, SW7, SW3, SW2, SW0, CM0, SW1, SW4, SW5, SW6, SEG9, SEG8, DE, DE

CN2: +5IP, DATA, SCK, E, CPRST

C1 6.3V330

X1 EFOEC4004T3

C8 0.1

R15 0

C9 2200P

R7 100

C5 6.3V100

R8 4.7K

R11 4.7K

R2 470

R3 220

R4 220

R5 470

R6 4.7K

R9 4.7K

R12 47K

R13 47K

C7 0.001

C10 0.001

SW80 QSRGT002AA

R10 100K

C6 0.1

VR2 QRVG25N01B53

VREF

+5IP

VDD 22, VSS 21, XIN 19, XOUT 20, RST 25, VREF 18, ID 10, SIN 5, SOUT 4, CLK 3, CNTR1 29, ROTA 30, ROTB 31, AD0 11, AD1 12, AD2 13, AD3 14

SW0 23, SW1 24, SW2 42, SW3 1, SW4 26, SW5 27, SW6 28, SW7 2

R14 10K, R18 10K, R24 10K, R25 10K, R26 10K, R27 10K, R28 10K, R29 10K

CM0 9, CM1 8, CM2 7, CM3 6, CM4 17, CM5 16

R19 10K, R20 10K, R21 10K, R22 10K, R23 10K, R40 10K

Q1 2SA830STP, Q2 2SA830STP, Q3 2SA830STP, Q4 2SA830STP, Q5 2SA830STP, Q6 2SA830STP

SEG0 34, SEG1 35, SEG2 36, SEG3 37, SEG4 38, SEG5 39, SEG6 40, SEG7 41, SEG8 15, SEG9 32, SEG10 33

A, B, C, D, E, F, G, H, I, J

IC2 HD74LS07P (HEX BUFFERS)

IC3 HD74LS07P (HEX BUFFERS)

C11 0.1, C12 0.1

R35 100, R31 100, R32 100, R33 100, R34 100

R30 100, R36 100, R37 100, R38 100, R39 100

SEG6, SEG7, SEG8, SEG9

D1	SW1 FAVORITES	D5	SW5 INTRO& ENDING2	D7	SW7 COUNT INTRO FILL IN2	D8	SW8 SEQUENCER RESET	D13	SW13 VARIATION &MSA 4	D14	SW14 VARIATION &MSA 3								
D2	SW2 TAP TEMPO	D6	SW6 INTRO& ENDING1	D17	SW17 FADE OUT	D18	SW18 FADE IN	D19	SW19 RHYTHM GROUP MEMORY LOAD	D20	SW20 RHYTHM GROUP MATCH&WALTS								
D9	SW9 SIMPLE PIANO			D24	SW24 RHYTHM GROUP SOUL&DISCO	D23	SW23 RHYTHM GROUP GOSPEL BLUES	D22	SW22 RHYTHM GROUP C&W	D21	SW21 RHYTHM GROUP BALLROOM SHOWTIME								
D10	SW10 PROGRESSIVE PIANIST			D33	SW33 MUSIC STYLE ARRANGER			D16	SW16 VARIATION &MSA 1	D15	SW15 VARIATION &MSA 2								
D3	SW3 SYNCHRO START	D12	SW12 ONE TOUCH PLAY	D25	SW25 SOUND ARRANGER OFF/ON	D26	SW26 SOUND ARRANGER SET	D27	SW27 RHYTHM GROUP METRONOME	D28	SW28 RHYTHM GROUP LATIN&WORLD								
D4	SW4 START /STOP	D11	SW11 PIANO STYLIST	D32	SW32 RHYTHM GROUP 8&16 BEAT	D31	SW31 RHYTHM GROUP BALLAD	D30	SW30 RHYTHM GROUP JAZZ COMBO	D29	SW29 RHYTHM GROUP BIGBAND&SWING								
D41	SW41 PIANO PERFORMANCE PADS STOP																		
D42	SW42 PIANO PERFORMANCE PADS BANK			D43	SW43 PIANO PERFO- RMANCE PAD AUTO SETTING	D47	SW47 DEMO												
D90 LN382RPXVTX3 TEMPO/ PROGRAM		D91 LN382RPXVTX3 PROGRESSIVE PIANIST		D70 LN282RPXVTX3 FILL IN2		D71 LN282GPXVTX3 FILL IN1		D72 LN282GPXVTX3 VARIATION &MSA 3		D73 LN282GPXVTX3 VARIATION &MSA 3		D104 LN282RPXVTX3 AUTO PLAY CHORD OFF/ON							
D110 LN382RPXVTX3 FAVORITES		D80 LN382RPXVTX3 SIMPLE PIANO		D81 LN282RPXVTX3 FADE OUT		D82 LN282RPXVTX3 FADE IN		D83 LN382RPXVTX3 MEMORY		D84 LN282RPXVTX3 MATCH &WALTS		D103 LN282RPXVTX3 AUTO PLAY CHORD MODE							
D66 LN282RPXVTX3 SYNCHRO START		D62 LN282RPXVTX3 BEAT1		D93 LN382RPXVTX3 SOUND ARRANGER OFF/ON		D94 LN382RPXVTX3 SOUND ARRANGER SET		D95 LN282RPXVTX3 METRONOME		D96 LN282GPXVTX3 LATIN &WORLD		D105 LN282RPXVTX3 AUTO SETTING							
D65 LN382GPXVTX3 BEAT4		D61 LN282GPXVTX3 INTRO& ENDING2		D100 LN282RPXVTX3 8&16 BEAT		D115 LN282GPXVTX3 BALLAD		D114 LN282GPXVTX3 JAZZ COMBO		D112 LN282GPXVTX3 BIGBAND &SWING									
D64 LN382RPXVTX3 BEAT3		D60 LN382RPXVTX3 INTRO& ENDING1		D113 LN282RPXVTX3 SOUL& DISCO		D111 LN282RPXVTX3 GOSPEL BLUES		D86 LN282RPXVTX3 C&W		D85 LN282RPXVTX3 BALLROOMS &SHOWTIME									
D63 LN382RPXVTX3 BEAT2		D92 LN382RPXVTX3 PIANO STYLIST		D76 LN282RPXVTX3 MUSIC STYLE ARRANGER		D106 LN382RPXVTX3 ACP/ SEQUENCER VOLUME		D75 LN282RPXVTX3 VARIATION &MSA 1		D74 LN282RPXVTX3 VARIATION &MSA 2									

UNLESS OTHERWISE SPECIFIED:
SWITCHES ARE EVQ21507K,
DIODES ARE MA165TA5VT.

SCHEMATIC DIAGRAM-13

F CPR CIRCUIT

TO A MAIN 2/5 CIRCUIT (CN101) ON SCHEMATIC DIAGRAM-3 & TO E CPL CIRCUIT (CN2) ON SCHEMATIC DIAGRAM-12

TO F CPCR CIRCUIT(CN100) ON SCHEMATIC DIAGRAM-15

CN1 CN2

IC1 M37471M2196S (8BIT MICROCOMPUTER)

X1 EFOEC4004T3

C1 6.3V330 · C2 0.0022 · C3 100P · C4 0.1 · C5 0.1 · C6 0.1 · C7 0.001

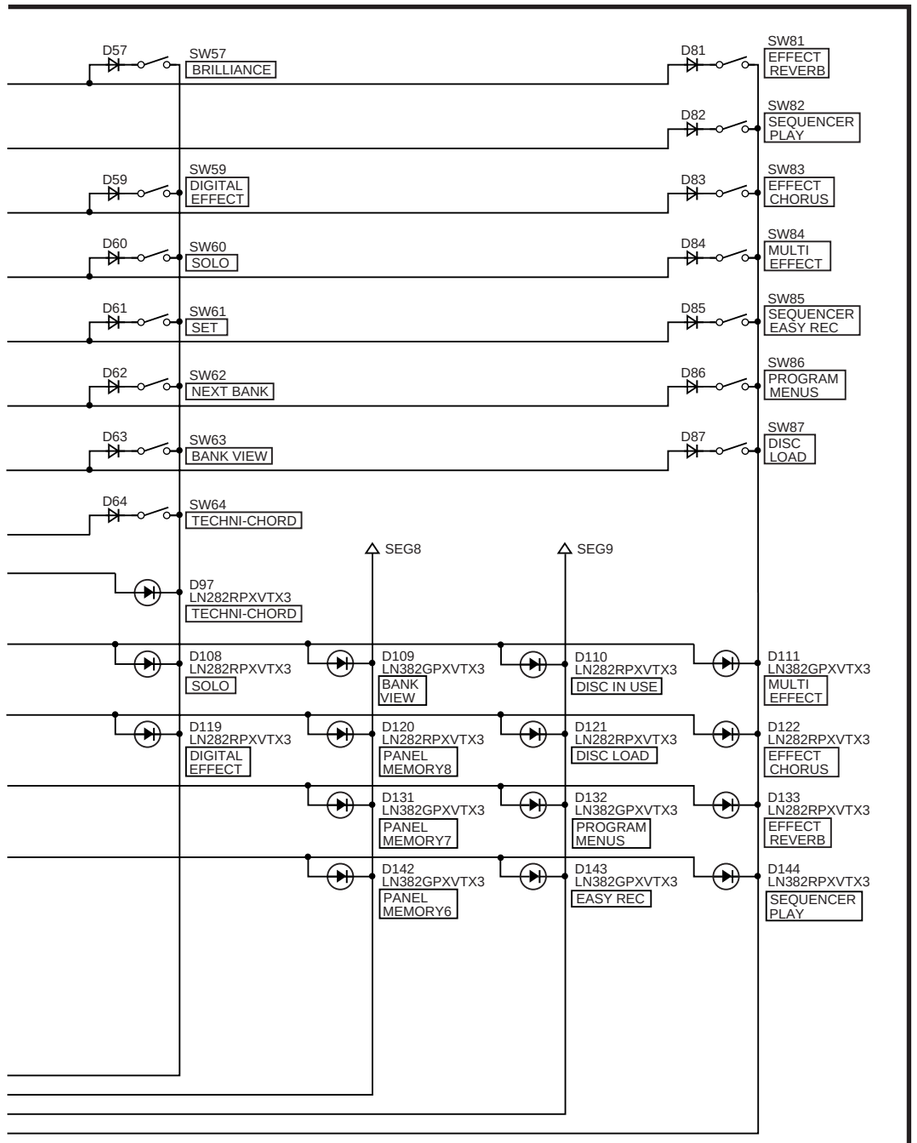
R1 470 · R2 220 · R3 220 · R4 470 · R5 0 · R6 100 · R7 10K · R9 10K · R10 33K · R35 100 · R11–R23 10K · R24–R34 100

Q1 2SA830STPB · Q2 2SA830STPB · Q3 2SA830STPB · Q4 2SA830STPB · Q5 2SA830STPB

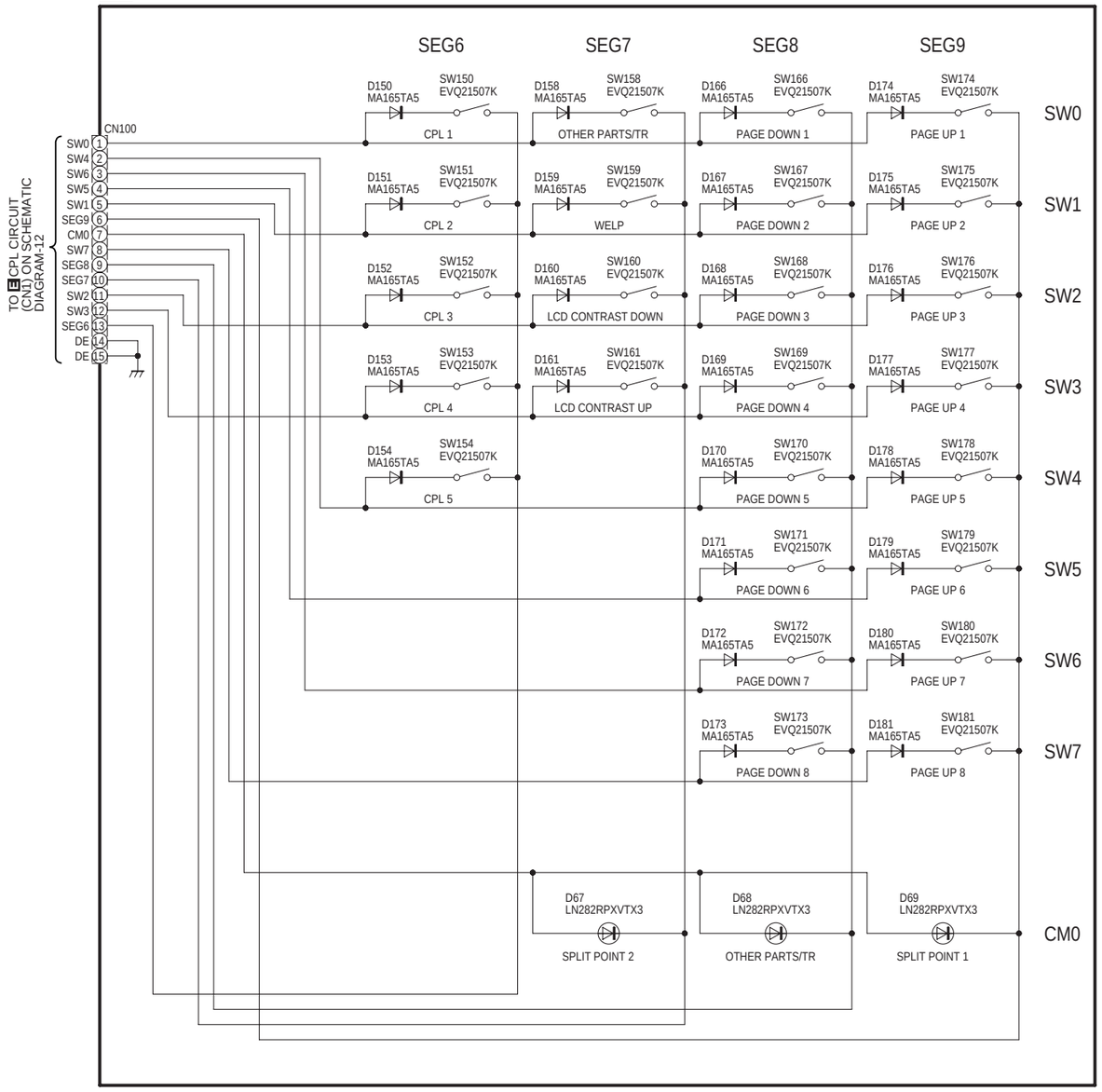
IC2 HD74LS07P (HEX BUFFERS) · IC3 HD74LS07P (HEX BUFFERS)

| | | |

SCHEMATIC DIAGRAM-14

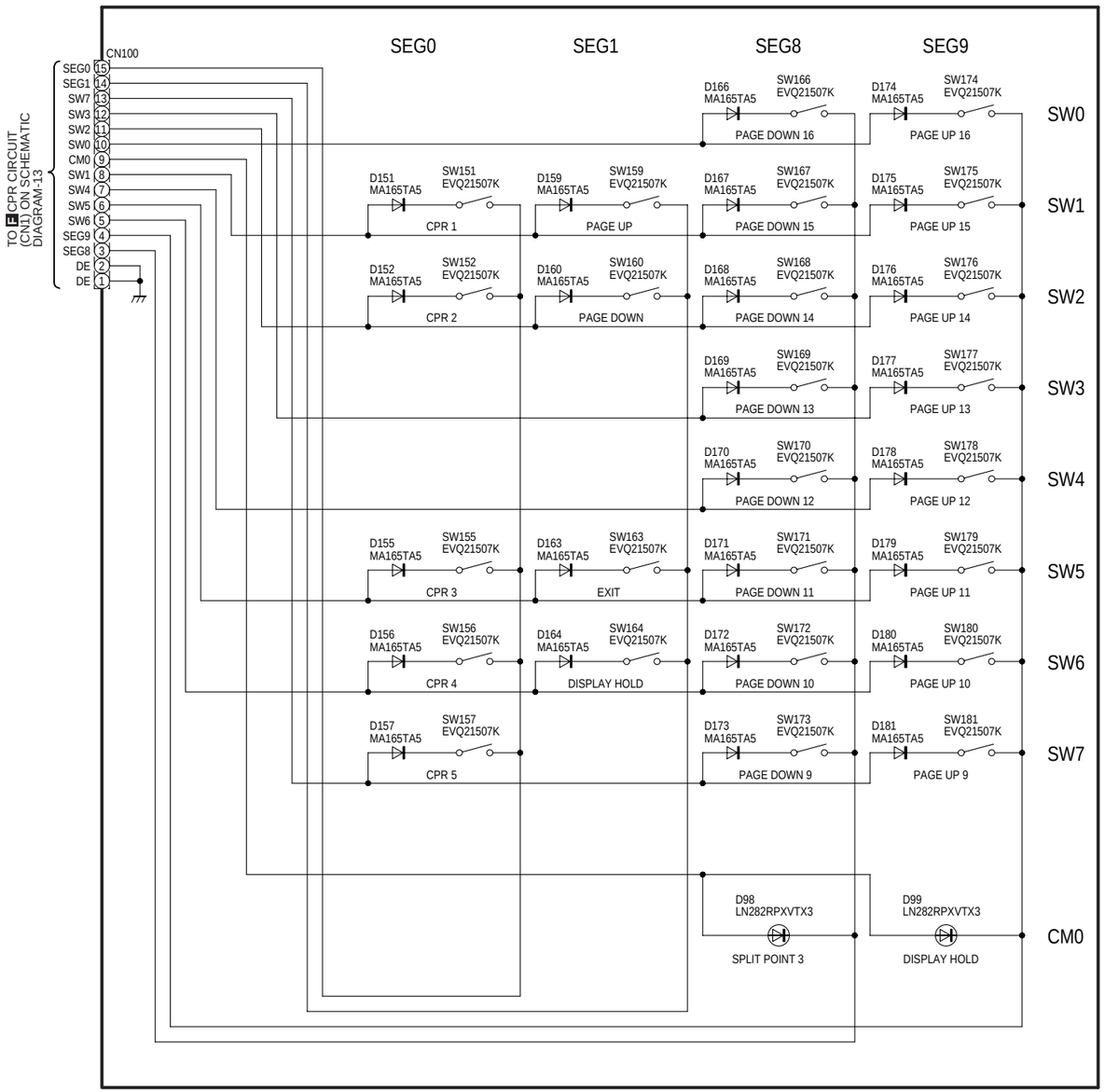


G CPCL CIRCUIT

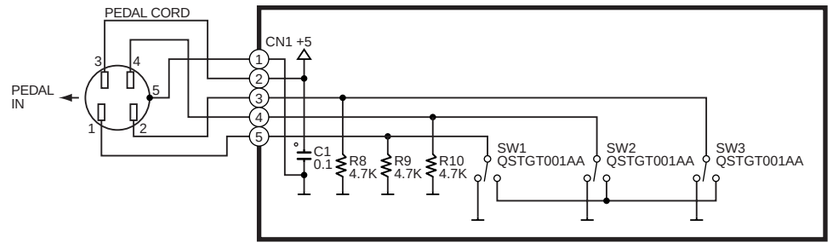

TO E CPL CIRCUIT (CN1) ON SCHEMATIC DIAGRAM-12
CN100
SW0 1
SW4 2
SW6 3
SW5 4
SW1 5
SEG9 6
CM0 7
SW7 8
SEG8 9
SEG7 10
SW2 11
SW3 12
SEG6 13
DE 14
DE 15
SEG6
SEG7
SEG8
SEG9
SW0
SW1
SW2
SW3
SW4
SW5
SW6
SW7
CM0
D150 MA165TA5 SW150 EVQ21507K CPL 1
D158 MA165TA5 SW158 EVQ21507K OTHER PARTS/TR
D166 MA165TA5 SW166 EVQ21507K PAGE DOWN 1
D174 MA165TA5 SW174 EVQ21507K PAGE UP 1
D151 MA165TA5 SW151 EVQ21507K CPL 2
D159 MA165TA5 SW159 EVQ21507K WELP
D167 MA165TA5 SW167 EVQ21507K PAGE DOWN 2
D175 MA165TA5 SW175 EVQ21507K PAGE UP 2
D152 MA165TA5 SW152 EVQ21507K CPL 3
D160 MA165TA5 SW160 EVQ21507K LCD CONTRAST DOWN
D168 MA165TA5 SW168 EVQ21507K PAGE DOWN 3
D176 MA165TA5 SW176 EVQ21507K PAGE UP 3
D153 MA165TA5 SW153 EVQ21507K CPL 4
D161 MA165TA5 SW161 EVQ21507K LCD CONTRAST UP
D169 MA165TA5 SW169 EVQ21507K PAGE DOWN 4
D177 MA165TA5 SW177 EVQ21507K PAGE UP 4
D154 MA165TA5 SW154 EVQ21507K CPL 5
D170 MA165TA5 SW170 EVQ21507K PAGE DOWN 5
D178 MA165TA5 SW178 EVQ21507K PAGE UP 5
D171 MA165TA5 SW171 EVQ21507K PAGE DOWN 6
D179 MA165TA5 SW179 EVQ21507K PAGE UP 6
D172 MA165TA5 SW172 EVQ21507K PAGE DOWN 7
D180 MA165TA5 SW180 EVQ21507K PAGE UP 7
D173 MA165TA5 SW173 EVQ21507K PAGE DOWN 8
D181 MA165TA5 SW181 EVQ21507K PAGE UP 8
D67 LN282RPXVTX3 SPLIT POINT 2
D68 LN282RPXVTX3 OTHER PARTS/TR
D69 LN282RPXVTX3 SPLIT POINT 1

SCHEMATIC DIAGRAM-15

H CPCR CIRCUIT



I PKB CIRCUIT



J HP/MIC CIRCUIT